

Indiana Department of Transportation

County Warrick

Route SR 62

Des. No. 1702071

**FHWA-Indiana Environmental Document
CATEGORICAL EXCLUSION / ENVIRONMENTAL ASSESSMENT FORM
GENERAL PROJECT INFORMATION**

Road No./County:

State Road (SR) 62, Warrick County

Designation Number:

1702071

Project Description/Termini:

Small Structure Replacement/SR 62, approximately 4.79 miles east of SR 61.

After completing this form, I conclude that this project qualifies for the following type of Categorical Exclusion (FHWA must review/approve if Level 4 CE):

X	Categorical Exclusion, Level 2 – The proposed action meets the criteria for Categorical Exclusion Manual Level 2 - table 1, CE Level Thresholds. Required Signatories: ESM (Environmental Scoping Manager)
	Categorical Exclusion, Level 3 – The proposed action meets the criteria for Categorical Exclusion Manual Level 3 - table 1, CE Level Thresholds. Required Signatories: ESM, ES (Environmental Services Division)
	Categorical Exclusion, Level 4 – The proposed action meets the criteria for Categorical Exclusion Manual Level 4 - table 1, CE Level Thresholds. Required Signatories: ESM, ES, FHWA
	Environmental Assessment (EA) – EAs require a separate FONSI. Additional research and documentation is necessary to determine the effects on the environment. Required Signatories: ES, FHWA

Note: For documents prepared by or for Environmental Services Division, it is not necessary for the ESM of the district in which the project is located to release for public involvement or sign for approval.

Approval

ESM Signature

Date

ES Signature

Date

FHWA Signature

Date

Release for Public Involvement

RF

ESM Initials

5/21/2020

Date

ES Initials

Date

Certification of Public Involvement

Office of Public Involvement

Date

Note: Do not approve until after Section 106 public involvement and all other environmental requirements have been satisfied.

INDOT ES/District Env.

Reviewer Signature: _____

Date: _____

Name and Organization of CE/EA Preparer: Harlan M. Ford, GAI Consultants, Inc.

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Part I - PUBLIC INVOLVEMENT

Every Federal action requires some level of public involvement, providing for early and continuous opportunities throughout the project development process. The level of public involvement should be commensurate with the proposed action.

Does the project have a historic bridge processed under the Historic Bridges PA*? Yes No
If No, then: Opportunity for a Public Hearing Required? X

*A public hearing is required for all historic bridges processed under the Historic Bridges Programmatic Agreement between INDOT, FHWA, SHPO, and the ACHP.

Discuss what public involvement activities (legal notices, letters to affected property owners and residents (i.e. notice of entry), meetings, special purpose meetings, newspaper articles, etc.) have occurred for this project.

Remarks: Notice of Entry letters were mailed to potentially affected property owners near the project area on August 13, 2018... The project will meet the minimum requirements described in the current Indiana Department of Transportation (INDOT) Public Involvement Manual...

Public Controversy on Environmental Grounds Will the project involve substantial controversy concerning community and/or natural resource impacts? Yes No X

Remarks: At this time, there is no substantial public controversy concerning impacts to the community or to natural resources.

Part II - General Project Identification, Description, and Design Information

Sponsor of the Project: Indiana Department of Transportation (INDOT) INDOT District: Vincennes
Local Name of the Facility: State Road (SR) 62

Funding Source (mark all that apply): Federal X State X Local Other*

*If other is selected, please identify the funding source:

PURPOSE AND NEED:

Describe the transportation problem that the project will address. The solution to the traffic problem should NOT be discussed in this section. (Refer to the CE Manual, Section IV.B.2. Purpose and Need)

The need for this project stems from the deteriorating conditions of the existing culvert (CV 062-087-48.79). This culvert is a 14 foot (ft.) span by 8 ft. rise concrete slab top, approximately 30 ft. in length that carries SR 62 over UNT to Otter Creek.

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The purpose of this project is to provide a structurally and hydraulically sufficient structure at this location. This project should result in the structure having an overall condition rating of "9", indicating excellent condition.

PROJECT DESCRIPTION (PREFERRED ALTERNATIVE):

County: Warrick Municipality: SR 62

Limits of Proposed Work: Approximately 180 ft. west and 180 ft. east on SR 62 from the center of the structure.

Total Work Length: 0.07 Mile(s) Total Work Area: 0.73 Acre(s)

Is an Interchange Modification Study / Interchange Justification Study (IMS/IJS) required?
If yes, when did the FHWA grant a conditional approval for this project?

Yes ¹	No
<input type="checkbox"/>	<input checked="" type="checkbox"/>
Date: <input style="width: 100%;" type="text"/>	

¹If an IMS or IJS is required; a copy of the approved CE/EA document must be submitted to the FHWA with a request for final approval of the IMS/IJS.

In the remarks box below, describe existing conditions, provide in detail the scope of work for the project, including the preferred alternative. Include a discussion of logical termini. Discuss any major issues for the project and how the project will improve safety or roadway deficiencies if these are issues.

Location

The project is located on SR 62 over Otter Creek, approximately 4.79 miles east of SR 61 in Skelton Township, Warrick County, Indiana. Specifically, this project is in Section 33, Township 5 South, Range 7 West, as shown on the DeGonia U.S. Geological Survey (USGS) 7.5 Minute Topographic Map (Appendix B, page B2).

Existing Conditions

SR 62 within the project area, is a two lane, east to west, rural major collector, consisting of a 12 ft. eastbound (EB) travel lane and a 14 ft. westbound (WB) travel lane both with accompanying 2 ft. stone shoulders. SR 62 had an Average Annual Daily Traffic (AADT) count of 3,439 vehicles per day (VPD) in 2014 (source: INDOT Traffic County Database System). Culvert No. 062-087-48.79 is a 14 ft. span by 8 ft. rise concrete slab top, approximately 30 ft. in length and is showing signs of deterioration. This culvert carries SR 62 over UNT to Otter Creek. Surrounding land use is primarily agricultural and rural residential. There is a small forested area within the southern extents of the project area that would be considered suitable summer habitat for bat species.

Preferred Alternative

The Indiana Department of Transportation (INDOT) and the Federal Highway Administration (FHWA) are proposing a small structure replacement in Warrick County, IN. The project proposes replacing the existing culvert with a new 14 ft. span by 8 ft. rise reinforced concrete box (RCB) culvert. The scope of work for this project includes:

- Replace the existing culvert
- Place riprap as a scour countermeasure
- Install new guardrail along the north and south side of SR 62
- Roadway work necessary to accommodate the new guardrails and 4 ft. paved shoulder width
- Full depth pavement replacement over the culvert trench
- Realign and regrade the stream channel and the roadside ditches present within the project area

Please refer to Appendix B, pages B14 to B15 for plan sheets that illustrate the above stated work.

Every effort will be made to avoid, minimize and/or mitigate project impacts during this small structure replacement project. This project demonstrates independent utility because it will replace the existing structure as a stand-alone project and is not dependent on any other planned projects. The project area is localized to the immediate area surrounding the culvert. This project will extend approximately 180 ft. west and 180 ft. east from the SR 62 roadway centerline.

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Due to the scope of work, disruptions to traffic will occur. The Maintenance of Traffic (MOT) for this project will utilize a road closure with an official detour route. Please refer to the MOT section of this document for details.

Based on the above information, the preferred alternative will meet the purpose and need of the project by replacing the existing culvert that carries SR 62 over UNT to Otter Creek.

OTHER ALTERNATIVES CONSIDERED:

Describe all discarded alternatives, including the Do-Nothing Alternative and an explanation of why each discarded alternative was not selected.

The "No Build" Alternative

The "No-Build" alternative was considered for the proposed project. This alternative would eliminate any environmental impacts by utilizing the existing structure with no expenditure of funds for improvement. However, this alternative would not meet the purpose and need of the project and was eliminated from further consideration.

Three-Sided Flat Top Culvert (Alternative #2)

This alternative proposed replacing the existing structure with a 14 ft. span by 8 ft. rise three-sided flat top culvert. In addition, this alternative would include placement of Class 1 revetment riprap at the outlet as a scour countermeasure. This alternative would result in similar environmental impacts and cost as the preferred alternative. Although this alternative meets the purpose and need of the project it was dismissed for a more feasible and prudent alternative.

Three-Sided Arch Top Culvert (Alternative #3)

This alternative proposed replacing the existing structure with a 14 ft. span by 8 ft. rise three-sided arch top culvert. In addition, this alternative would include placement of Class 1 revetment riprap at the outlet as a scour countermeasure. This alternative would result in similar environmental impacts and cost as the preferred alternative. Although this alternative meets the purpose and need of the project it was dismissed for a more feasible and prudent alternative.

The Do Nothing Alternative is not feasible, prudent or practicable because (Mark all that apply):

- It would not correct existing capacity deficiencies;
- It would not correct existing safety hazards;
- It would not correct the existing roadway geometric deficiencies;
- It would not correct existing deteriorated conditions and maintenance problems; or
- It would result in serious impacts to the motoring public and general welfare of the economy.
- Other (Describe) _____

X

ROADWAY CHARACTER: SR 62

Functional Classification: Rural Major Collector
 Current ADT: 3,439 VPD (2014) Design Year ADT: 3,980 VPD (2022)
 Design Hour Volume (DHV): 143 Truck Percentage (%) 7
 Designed Speed (mph): 55 Legal Speed (mph): 55

Existing	Proposed
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	Existing	Proposed	
Number of Lanes:	2	2	
Type of Lanes:	12 ft. (EB) & 14 ft. (WB)	12 ft. (EB) & 14 ft. (WB)	
Pavement Width:	26 ft.	26 ft.	
Shoulder Width:	2-3 ft.	4 ft.	
Median Width:	N/A ft.	N/A ft.	
Sidewalk Width:	N/A ft.	N/A ft.	

Setting: Urban Suburban Rural
 Topography: Level Rolling Hilly

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If the proposed action has multiple roadways, this section should be filled out for each roadway.

DESIGN CRITERIA FOR BRIDGES:

Structure/NBI Number(s): CV # 062-087-48.79 Sufficiency Rating: N/A
(Rating, Source of Information)

	Existing		Proposed
Bridge Type:	Concrete Slab-top		Reinforced Concrete Box
Number of Spans:	N/A		N/A
Weight Restrictions:	N/A	ton	N/A
Height Restrictions:	N/A	ft.	N/A
Curb to Curb Width:	N/A	ft.	N/A
Outside to Outside Width:	N/A	ft.	N/A
Shoulder Width:	2-3	ft.	4
Length of Channel Work:			87.5

Describe bridges and structures; provide specific location information for small structures.

Remarks: The proposed project involves the replacement Culvert No. 062-087-48.79 that carries SR 62 over UNT to Otter Creek. Specifically, this structure is located approximately 4.79 miles east of SR 61. The existing structure is a 14 ft. span by 8 ft. rise concrete slab top, approximately 30 ft. in length. The proposed project includes a new reinforced concrete box (RCB) culvert, full depth pavement replacement over the culvert trench, installation of new guardrail, widening of the roadway shoulders, placement of riprap, and the realignment of UNT 1 and the roadside ditches. No other bridges or structures are included with this project.

Will the structure be rehabilitated or replaced as part of the project? Yes No N/A
If the proposed action has multiple bridges or small structures, this section should be filled out for each structure.

MAINTENANCE OF TRAFFIC (MOT) DURING CONSTRUCTION:

	Yes	No
Is a temporary bridge proposed?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Is a temporary roadway proposed?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Will the project involve the use of a detour or require a ramp closure? (describe in remarks)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Provisions will be made for access by local traffic and so posted.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Provisions will be made for through-traffic dependent businesses.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Provisions will be made to accommodate any local special events or festivals.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Will the proposed MOT substantially change the environmental consequences of the action?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Is there substantial controversy associated with the proposed method for MOT?	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Remarks: The Maintenance of Traffic (MOT) for this project will require a road closure and official detour on State Routes. The best available detour route would be SR 161 to SR 68 to SR 61 to SR 62 for westbound traffic and opposite for eastbound. This route would add distance of 23.10 miles for traveling motorists. Please refer to plan sheets illustrating the MOT in Appendix B, page B13.

The closures/lane restrictions will pose a temporary inconvenience to traveling motorists (including school buses and emergency services); however, no significant delays are anticipated, and all inconveniences will cease upon project completion. Delays may occur during construction but will cease with project completion.

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ESTIMATED PROJECT COST AND SCHEDULE:

Please note that this project is included under Lead Des No. 1700170 in the 2020-2024 STIP under contract R-40551. The PE costs come from the 2018-2021 STIP, as funding was utilized in 2019 for PE.

Engineering: \$ 138,800 (2019) Right-of-Way: \$ 18,000.00 (2020) Construction: \$ 2,042,438.00 (2020)

Anticipated Start Date of Construction: Spring of 2022

Date project incorporated into STIP July 2, 2019

Is the project in an MPO Area? **Yes** **No**

If yes,

Name of MPO Evansville Metropolitan Planning Organization

Location of Project in TIP Page 45

Date of incorporation by reference into the STIP July 2, 2019

RIGHT OF WAY:

Land Use Impacts	Amount (acres)	
	Permanent	Temporary
Residential	0.150	0
Commercial	0	0
Agricultural	0.027	0
Forest	0.347	0
Wetlands	0	0
Other:	0	0
Other:	0	0
TOTAL	0.524	0

Describe both Permanent and Temporary right-of-way and describe their current use. Typical and Maximum right-of-way widths (existing and proposed) should also be discussed. Any advance acquisition or reacquisition, either known or suspected, and there impacts on the environmental analysis should be discussed.

Remarks: Existing right-of-way (ROW) ends approximately 30 ft. north from the roadway centerline and approximately 30-35 ft. south from the roadway centerline. The ROW within the project area is currently used to maintain the existing roadway, shoulders and ditches.

This project will require approximately 0.792 acre of reacquired ROW and approximately 0.524 acre of permanent right-of-way from three parcels on the north side of SR 62 and one parcel on the south side of SR 62. No temporary ROW is needed for this project.

If the scope of work or permanent or temporary right-of-way amounts change, the INDOT Environmental Services Division (ESD) and the INDOT District Environmental Section will be contacted immediately.

This is page 6 of 22 Project name: SR 62 over UNT to Otter Creek Date: May 15, 2020

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Part III – Identification and Evaluation of Impacts of the Proposed Action

SECTION A – ECOLOGICAL RESOURCES

	<u>Presence</u>	<u>Impacts</u>	
		<u>Yes</u>	<u>No</u>
Streams, Rivers, Watercourses & Jurisdictional Ditches	X	X	
Federal Wild and Scenic Rivers			
State Natural, Scenic or Recreational Rivers			
Nationwide Rivers Inventory (NRI) listed			
Outstanding Rivers List for Indiana			
Navigable Waterways			

Remarks:

Based on a desktop review, a site visit on October 11, 2018 by GAI, the aerial map of the project area (Appendix B, page B3), and the water resources map in the Red Flag Investigation (RFI) report (Appendix E, pages E1 to E7), there are three stream segments located within the 0.5-mile search radius. There are two stream segments, UNT to Otter Creek and UNT 1, present within the project area.

A Waters of the U.S. Determination / Wetland Delineation Report was approved by INDOT Ecology and Waterway Permitting Office on July 18, 2019. Please refer to Appendix F, pages F1 to F19 for the *Waters of the U.S. Determination / Wetland Delineation Report*. It was determined that UNT to Otter Creek and UNT 1 would likely be considered Waters of the U.S. Additional roadside ditches were observed in the northeast and southeast quadrants of the project area; however, due to their lack of a defined bed and bank or flow regime, they would not likely be designated as Waters of the U.S. The USACE makes all final determinations regarding jurisdiction.

UNT to Otter Creek is an intermittent stream that flows north to south through the project area and exhibits an ordinary high-water mark (OHWM) of 6 ft. wide and 6 ft. deep. UNT to Otter Creek has a riparian zone that consists of maintained lawn on the north side of the creek and is forested on the south side of the creek. Approximately 246 linear ft. of UNT to Otter Creek is present within the project area with 30 linear ft. encapsulated within the existing culvert. Total impacts to UNT to Otter Creek due to the riprap scour countermeasures, replacement of the culvert, dewatering, and regrading of the channel is approximately 246 linear ft. and or 0.05 acre. Approximately 223 linear ft. of new impacts will occur to UNT to Otter Creek. UNT 1 is a roadside ditch with intermittent flow towards UNT to Otter Creek and is located in the southeast quadrant of the project area. UNT-1 exhibited an OHWM of 3 ft. wide and 3 in. deep. Total impacts to UNT 1 due to realigning of the stream channel is approximately 190 linear ft. and/or 0.03 acre. Cumulatively impacts to UNT to Otter Creek and UNT-1 will equal 413 linear ft. and/or 0.08 acre. Stream mitigation will be required for this project as cumulative stream impacts will exceed 300 linear ft. Permits for the impacts to UNT to Otter Creek and UNT 1 will be necessary. Please refer to the *Permits* section of this document for details.

Early coordination letters were sent on November 8, 2018 to the Indiana Department of Natural Resources, Division of Fish and Wildlife (IDNR-DFW), the U.S. Army Corps of Engineers (USACE), and the U.S. Fish and Wildlife Service (USFWS) (Appendix C, pages C1 to C2). The IDNR-DFW indicated in their letter dated December 7, 2018 (Appendix C, pages C21 to C23), that the project would not require formal IDNR approval under the programs administered by the Division of Water. The IDNR-DFW letter also provided a list of recommendations to help avoid and minimize impacts to UNT to Otter Creek and UNT 1. All applicable recommendations can be found in the *Environmental Commitments* section of this CE document.

The USACE did not respond to the early coordination letter.

The USFWS responded in a letter dated November 14, 2018 (Appendix C, pages C24 to C26) stating, "Based on a review of the information you provided, the U.S. Fish and Wildlife Service has no objections to the project as currently proposed." The USFWS also provided a list of standard recommendations. All applicable recommendations can be found in the *Environmental Commitments* section of this CE document.

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Other Surface Waters

- Reservoirs
- Lakes
- Farm Ponds
- Detention Basins
- Storm Water Management Facilities
- Other: _____

Presence

X

Impacts

Yes	No
	X

Remarks:

Based on a desktop review, a site visit on October 11, 2018 by GAI, the aerial map of the project area (Appendix B, page B3), and the water resources map in the RFI report (Appendix E, page E7), there are 8 lakes located within the 0.5 mile search radius. No other surface waters are present within the project area; therefore, no impacts are expected.

Early coordination letters were sent on November 8, 2018 to the IDNR-DFW, the USACE, and the USFWS (Appendix C, pages C1 to C2). The IDNR-DFW responded on December 7, 2018 (Appendix C, pages C21 to C23) with no specific comments in regard to other surface waters. However, the IDNR-DFW letter did provide a list of standard recommendations. All applicable recommendations can be found in the *Environmental Commitments* section of this CE document.

The USACE did not respond to the early coordination letter.

The USFWS responded in a letter dated November 14, 2018 (Appendix C, pages C24 to C26) stating, "Based on a review of the information you provided, the U.S. Fish and Wildlife Service has no objections to the project as currently proposed." The USFWS offered no specific comments regarding other surface waters but provided a list of standard recommendations. All applicable recommendations can be found in the *Environmental Commitments* section of this CE document.

Wetlands

Presence

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Impacts

Yes	No

Total wetland area: N/A acre(s)

Total wetland area impacted: N/A acre(s)

(If a determination has not been made for non-isolated/isolated wetlands, fill in the total wetland area impacted above.)

Wetland No.	Classification	Total Size (Acres)	Impacted Acres	Comments
N/A	N/A	N/A	N/A	N/A

Wetlands (Mark all that apply)

- Wetland Determination
- Wetland Delineation
- USACE Isolated Waters Determination
- Mitigation Plan

Documentation

X

ES Approval Dates

July 18, 2019

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Improvements that will not result in any wetland impacts are not practicable because such avoidance would result in (Mark all that apply and explain):

- Substantial adverse impacts to adjacent homes, business or other improved properties;
- Substantially increased project costs;
- Unique engineering, traffic, maintenance, or safety problems;
- Substantial adverse social, economic, or environmental impacts, or
- The project not meeting the identified needs.

Measures to avoid, minimize, and mitigate wetland impacts need to be discussed in the remarks box.

Remarks: Based on a review of the National Wetlands Inventory (NWI) online mapper (<https://www.fws.gov/wetlands/data/Mapper.html>), a site visit on October 11, 2018, the USGS topographic map (Appendix B, page B2), and the RFI report (Appendix E, pages E1 to E9), there are twenty-five wetlands located within the 0.5-mile search radius. No wetlands are present within or adjacent to the project area, therefore, no impacts are expected.

A *Waters of the U.S. Determination / Wetland Delineation Report* was approved by INDOT Ecology and Waterway Permitting Office on July 18, 2019. Please refer to Appendix F, pages F1 to F19 for the *Waters of the U.S. Determination / Wetland Delineation Report*. It was determined that there are no wetlands present within the study area. The USACE makes all final determinations regarding jurisdiction.

Early coordination letters were sent on November 8, 2018 to the IDNR-DFW, the USACE, and the USFWS (Appendix C, pages C1 to C2). The IDNR-DFW responded on December 7, 2018 (Appendix C, pages C21 to C23) with recommendations on wetland mitigation. The IDNR-DFW letter also provided a list of standard recommendations. All applicable recommendations can be found in the *Environmental Commitments* section of this CE document.

The USACE did not respond to the early coordination letter.

The USFWS responded in a letter dated November 14, 2018 (Appendix C, pages C24 to C26) stating, "Based on a review of the information you provided, the U.S. Fish and Wildlife Service has no objections to the project as currently proposed." The USFWS provided a list of standard recommendations and all applicable recommendations can be found in the *Environmental Commitments* section of this CE document.

	<u>Presence</u>	<u>Impacts</u>	
		Yes	No
Terrestrial Habitat	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Unique or High Quality Habitat	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Use the remarks box to identify each type of habitat and the acres impacted (i.e. forested, grassland, farmland, lawn, etc).

Remarks: Based on a desktop review, a site visit on October 11, 2018 by GAI and the aerial map of the project area (Appendix B, page B3), there is forested riparian habitat in both southern quadrants and the northeast quadrant of the project area. Vegetation consists primarily of spotted lady's thumb (*Polygonum persicaria*), asiatic dayflower (*Commelina communis*), reed canary grass (*Phalaris arundinacea*), cottonwood (*Populus deltoids*), hackberry (*Celtis occidentalis*), and pokeweed (*Phytolacca americana*). This habitat would not be considered prime or unique. Impacts to this habitat will be necessary for the replacement of the existing culvert, placement of riprap, the realignment of UNT to Otter Creek and UNT 1, and to accommodate 4 ft. paved shoulders. Approximately 0.16 acre of tree trimming and/or clearing is anticipated in the northeast and southern quadrants of the project area. Total area of soil disturbance associated with this project is approximately 0.65 acre. Avoidance alternatives are not practical for this project as impacts are necessary to meet the purpose and need of the project. However, impacts have been reduced to the greatest extent practicable required to complete this project. No mitigation for impacts to terrestrial habitat is anticipated for this project.

An early coordination letter was sent on November 8, 2018 to the IDNR-DFW (Appendix C, pages C1 to C2) The IDNR-DFW responded on December 7, 2018 (Appendix C, pages to C21 to C23). The IDNR-DFW letter provided a list of recommendations to help avoid and minimize impacts to riparian habitat. All applicable

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recommendations can be found in the *Environmental Commitments* section of this CE document.

If there are high incidences of animal movements observed in the project area, or if bridges and other areas appear to be the sole corridor for animal movement, consideration of utilizing wildlife crossings should be taken.

Karst	Yes	No
Is the proposed project located within or adjacent to the potential Karst Area of Indiana?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Are karst features located within or adjacent to the footprint of the proposed project?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
If yes, will the project impact any of these karst features?	<input type="checkbox"/>	<input type="checkbox"/>

Use the remarks box to identify any karst features within the project area. (Karst investigation must comply with the Karst MOU, dated October 13, 1993)

Remarks: Based on a desktop review, the project is located outside the designated karst region of Indiana as outlined in the October 13, 1993 Memorandum of Understanding (MOU). According to the topo map of the project area (Appendix B, page B2), and the RFI report (Appendix E, pages E1 to E9), there are no karst features identified within the project area. In the early coordination response, the Indiana Geological Survey (IGS) did not indicate that karst features may exist in the project area (Appendix C, page C15 to C17). Their response stated that there is high liquefaction potential, a 1% Annual Chance Flood Hazard, and a high potential to encounter bedrock resources. Response from IGS has been communicated with the designer on August 20, 2019. No impacts are expected.

	Presence		Impacts	
Threatened or Endangered Species			Yes	No
Within the known range of any federal species	<input checked="" type="checkbox"/>		<input type="checkbox"/>	<input checked="" type="checkbox"/>
Any critical habitat identified within project area	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
Federal species found in project area (based upon informal consultation)	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
State species found in project area (based upon consultation with IDNR)	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
Is Section 7 formal consultation required for this action?	<input type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	No

Remarks: Based on a desktop review and the RFI report (Appendix E, pages E1 to E9), completed by GAI on August 5, 2019, the IDNR Warrick County Endangered, Threatened and Rare (ETR) Species List has been checked and is included in (Appendix E, pages E8 to E9). The highlighted species on the list reflect the federal and state identified ETR species located within the county. According to the IDNR-DFW early coordination response letter dated December 7, 2018 (Appendix C, pages C21 to C23), the Natural Heritage Program's Database has been checked the Natural Heritage Program's Database has been checked and to date no plant or animal species listed as state or federally threatened, endangered, or rare have been reported to occur in the project vicinity.

Project information was submitted through the USFWS's Information for Planning and Consultation (IPaC) portal, and an official species list was generated (Appendix C, pages C27 to C32). The project is within range of the federally endangered Indiana bat (*Myotis sodalis*) and the federally threatened northern long-eared bat (NLEB) (*Myotis septentrionalis*). No additional species were found within or adjacent to the project area other than the Indiana bat and northern long-eared bat

The project qualifies for the *Range-wide Programmatic Informal Consultation for the Indiana bat and northern long-eared bat (NLEB)*, dated May 2016 (revised February 2018), between FHWA, Federal Railroad Administration (FRA), Federal Transit Administration (FTA), and USFWS. An effect determination key was completed on December 20, 2019, and based on the responses provided, the project was found to "Not Likely to Adversely Affect" the Indiana bat and/or the NLEB (Appendix C, pages C35 to C49). INDOT reviewed and verified the effect finding on December 20, 2019 and requested USFWS's review of the finding (Appendix C, pages C50 to C52). No response was received from USFWS within the 14-day review period; therefore, it was

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concluded they concur with the finding. Avoidance and Mitigation Measures (AMMs) are included as firm commitments in the *Environmental Commitments* section of this document. Structure CV 062-087-48.79 was inspected for the presence of migratory birds/nests on October 11, 2018 by GAI. No migratory birds/nests were found during the inspection.

This precludes the need for further consultation on this project as required under Section 7 of the Endangered Species Act, as amended. If new information on endangered species at the site becomes available, or if project plans are changed, USFWS will be contacted for consultation.

SECTION B – OTHER RESOURCES

	<u>Presence</u>	<u>Impacts</u>	
		Yes	No
Drinking Water Resources			
Wellhead Protection Area	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Public Water System(s)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Residential Well(s)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Source Water Protection Area(s)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sole Source Aquifer (SSA)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

If a SSA is present, answer the following:

	Yes	No
Is the Project in the St. Joseph Aquifer System?	<input type="checkbox"/>	<input type="checkbox"/>
Is the FHWA/EPA SSA MOU Applicable?	<input type="checkbox"/>	<input type="checkbox"/>
Initial Groundwater Assessment Required?	<input type="checkbox"/>	<input type="checkbox"/>
Detailed Groundwater Assessment Required?	<input type="checkbox"/>	<input type="checkbox"/>

Remarks: The project is located in Warrick County, which is not located within the area of the St. Joseph Sole Source Aquifer, the only legally designated sole source aquifer in the state of Indiana. Therefore, the FHWA/EPA Sole Source Aquifer Memorandum of Understanding (MOU) is not applicable to this project. No impacts are expected.

In an early coordination letter dated September 10, 2019, IDEM stated the project is not located within a wellhead area (Appendix C, page C14). No impacts are expected.

The Indiana Department of Natural Resources Water Well Record Database website (<https://www.in.gov/dnr/water/3595.htm>) was accessed on May 23, 2019 GAI. No wells are located near this project. Therefore, no impacts are expected.

Based on a desktop review of the INDOT MS4 website (<https://entapps.indot.in.gov/MS4/>) by GAI on October 2, 2018, and the RFI report (Appendix E, pages E1 to E9), this project is not located in an Urban Area Boundary location. No impacts are expected

Based on a desktop review, a site visit on October 11, 2018 by GAI, the aerial map of the project area (Appendix B, page B3), no public water systems were identified. Therefore, no impacts are expected.

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Flood Plains	Presence	Impacts	
		Yes	No
Longitudinal Encroachment	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Transverse Encroachment	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Project located within a regulated floodplain	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Homes located in floodplain within 1000' up/downstream from project	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discuss impacts according to classification system described in the "Procedural Manual for Preparing Environmental Studies".

Remarks: Based on a desktop review of The Indiana Department of Natural Resources Indiana Floodway Information Portal website (<http://dnrmmaps.dnr.in.gov/appsphp/fdms/>) by GAI on October 2, 2018, and the RFI report (Appendix E, pages E1 to E9); this project is located in a regulatory floodplain as determined from approved IDNR floodplain maps (Appendix F, page F12). An early coordination letter was sent on May 14, 2019, to the local Floodplain Administrator. The floodplain administrator did not respond within the 30-day time frame.

This project qualifies as a Category 3 per the INDOT CE Manual, which includes projects that involve modifications to existing drainage structures. The modifications to drainage structures included in this project will result in an insubstantial change in their capacity to carry flood water. This change could cause a minimal increase in flood heights and flood limits. These minimal increases will not result in any substantial adverse impacts on the natural and beneficial floodplain values; they will not result in substantial change in flood risks or damage; and they do not have substantial potential for interruption or termination of emergency service or emergency routes; therefore, it has been determined that this encroachment is not substantial.

This project will include both longitudinal and transverse encroachment within of the floodplain. Longitudinal encroachment will be necessary for the work on the roadway, ditches and stream channel. Transverse encroachment will be necessary for the replacement of the existing culvert.

An early coordination letter was sent to the IDNR-DFW on November 8, 2018 (Appendix C, pages C1 to C2). The IDNR-DFW responded on December 7, 2018 (Appendix C, pages C21 to C23) stating "Formal approval by the DNR under regulatory programs administered by the Division of Water is not required for this project." This project qualifies for the IDNR Bridge Exemption as it is a state highway project, it is a bridge project (IDNR considers a culvert to be a bridge), it is in a rural area, and the upstream drainage area is less than 50 square miles.

Farmland	Presence	Impacts	
		Yes	No
Agricultural Lands	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Prime Farmland (per NRCS)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Total Points (from Section VII of CPA-106/AD-1006* _____
**If 160 or greater, see CE Manual for guidance.*

See CE Manual for guidance to determine which NRCS form is appropriate for your project.

Remarks: Based on a desktop review, a site visit on October 11, 2018 by GAI, the aerial map of the project area (Appendix B, page B3), there is no land that meets the definition of farmland under the Farmland Protection Policy Act (FPPA) within or adjacent to the project area. The requirements of the FPPA do not apply to this project; therefore, no impacts are expected.

An early coordination letter was sent on November 8, 2018, to the Natural Resources Conservation Services (NRCS). The NRCS responded on November 19, 2018 (Appendix C, page C18) stating, that the proposed project will not cause a conversion of prime farmland.

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SECTION C – CULTURAL RESOURCES

	Category	Type	INDOT Approval Dates	N/A
Minor Projects PA Clearance	B	9	March 26, 2020	N/A

Eligible and/or Listed
Resource Present

Results of Research

Archaeology	<input type="checkbox"/>
NRHP Buildings/Site(s)	<input type="checkbox"/>
NRHP District(s)	<input type="checkbox"/>
NRHP Bridge(s)	<input type="checkbox"/>

Project Effect

No Historic Properties Affected No Adverse Effect Adverse Effect

Documentation
Prepared

Documentation (mark all that apply)

		ES/FHWA Approval Date(s)	SHPO Approval Date(s)
Historic Properties Short Report	<input type="checkbox"/>		
Historic Property Report	<input type="checkbox"/>		
Archaeological Records Check/ Review	<input type="checkbox"/>		
Archaeological Phase Ia Survey Report	X	March 26, 2020	N/A
Archaeological Phase Ic Survey Report	<input type="checkbox"/>		
Archaeological Phase II Investigation Report	<input type="checkbox"/>		
Archaeological Phase III Data Recovery	<input type="checkbox"/>		
APE, Eligibility and Effect Determination	<input type="checkbox"/>		
800.11 Documentation	<input type="checkbox"/>		

Memorandum of Agreement (MOA) **MOA Signature Dates** (List all signatories)

Describe all efforts to document cultural resources, including a detailed summary of the Section 106 process, using the categories outlined in the remarks box. The completion of the Section 106 process requires that a Legal Notice be published in local newspapers. Please indicate the publication date, name of paper(s) and the comment period deadline. Likewise include any further Section 106 work which must be completed at a later date, such as mitigation or deep trenching.

Remarks: On March 26, 2020 the INDOT Cultural Resource Office (CRO) determined that this project falls within the guidelines of Category B, Type 9 and Category A, Types 6 & 9 under the Minor Projects Programmatic Agreement, (Appendix D, pages D1 to D4).

MPPA Category B, Type 9: Includes the installation, replacement, repair, lining, or extension of culverts and other drainage structures within undisturbed soils.

MPPA Category A, Type 6: Includes the repair, replacement, or upgrade of existing safety appurtenances such as guardrails, barriers, glare screens, and crash attenuators in previously disturbed soils.

MPPA Category A, Type 9: Includes the installation, repair, or replacement of erosion control measures along roadways, waterways, and bridge piers within previously disturbed soils.

As this project takes place in undisturbed soils an archaeological survey was required. The archaeological

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survey concluded that no archaeological resources or sites exist within the project area and it was recommended that the project be allowed to proceed as planned (Appendix D, pages D7 to D8). No further consultation is required. This completes the Section 106 process and the responsibilities of the FHWA under Section 106 have been fulfilled.

SECTION D – SECTION 4(f) RESOURCES/ SECTION 6(f) RESOURCES

Section 4(f) Involvement (mark all that apply)

Parks & Other Recreational Land

- Publicly owned park
- Publicly owned recreation area
- Other (school, state/national forest, bikeway, etc.)

Presence

Use

Yes	No

Evaluations Prepared

- Programmatic Section 4(f)*
- “De minimis” Impact*
- Individual Section 4(f)

FHWA Approval date

Wildlife & Waterfowl Refuges

- National Wildlife Refuge
- National Natural Landmark
- State Wildlife Area
- State Nature Preserve

Presence

Use

Yes	No

Evaluations Prepared

- Programmatic Section 4(f)*
- “De minimis” Impact*
- Individual Section 4(f)

FHWA Approval date

Historic Properties

- Sites eligible and/or listed on the NRHP

Presence

Use

Yes	No

Evaluations Prepared

- Programmatic Section 4(f)*
- “De minimis” Impact*
- Individual Section 4(f)

FHWA Approval date

**FHWA approval of the environmental document also serves as approval of any Section 4f Programmatic and/or De minimis evaluation(s) discussed below.*

Discuss Programmatic Section 4(f) and “de minimis” Section 4(f) impacts in the remarks box below. Individual Section 4(f) documentation must be separate Draft and Final documents. For further discussions on Programmatic, “de minimis” and Individual Section 4(f) evaluations please refer to the “Procedural Manual for the Preparation of Environmental Studies”. Discuss proposed alternatives that satisfy the requirements of Section 4(f).

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Remarks: Section 4(f) of the U.S. Department of Transportation Act of 1966 prohibits the use of certain public and historic lands for federally funded transportation facilities unless there is no feasible and prudent alternative. The law applies to significant publicly owned parks, recreation areas, wildlife/waterfowl refuges, and NRHP eligible or listed historic properties regardless of ownership. Lands subject to this law are considered Section 4(f) resources.

Based on a desktop review, a site visit on October 11, 2018 by GAI, the aerial map of the project area (Appendix B, page B3), and the RFI report (Appendix E, pages E1 to E9), there are no 4(f) resources located within the 0.5 mile search radius. There are no Section 4(f) resources within or adjacent to the project area. Therefore, no use is expected.

Section 6(f) Involvement	<u>Presence</u>	<u>Use</u>	
		Yes	No
Section 6(f) Property	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Discuss proposed alternatives that satisfy the requirements of Section 6(f). Discuss any Section 6(f) involvement.

Remarks: The U.S. Land and Water Conservation Fund Act of 1965 established the Land and Water Conservation Fund (LWCF), which was created to preserve, develop, and assure accessibility to outdoor recreation resources. Section 6(f) of this Act prohibits conversion of lands purchased with LWCF monies to a non-recreation use.

A review of 6(f) properties on the Land and Water Conservation Fund (LWCF) website at <https://www.lwcfcoalition.com/tools> revealed a total of 2 properties in Warrick County (Appendix I, page I1). In addition to the LWCF website review, the IDNR's Division of Outdoor Recreation list located at https://www.in.gov/indot/files/LWCF%20Indiana%20County%20List_02-25-2020.pdf was also reviewed (Appendix I, page I2). This list revealed 3 properties within Warrick County. None of these properties are located within or adjacent to the project area. Therefore, there will be no impacts to 6(f) resources as a result of this project.

SECTION E – Air Quality

Air Quality

Conformity Status of the Project		Yes	No
Is the project in an air quality non-attainment or maintenance area?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
If YES, then:			
Is the project in the most current MPO TIP?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Is the project exempt from conformity?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
If the project is NOT exempt from conformity, then:			
Is the project in the Transportation Plan (TP)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Is a hot spot analysis required (CO/PM)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Level of MSAT Analysis required?			
Level 1a	<input checked="" type="checkbox"/>	Level 1b	<input type="checkbox"/>
Level 2	<input type="checkbox"/>	Level 3	<input type="checkbox"/>
Level 4	<input type="checkbox"/>	Level 5	<input type="checkbox"/>

Remarks: The FY 2020-2024 STIP is listed based on the lead DES number in the contract. The lead DES number for this contract is 1700170. The FY 2020-2024 STIP includes DES number 1702071 by reference with the contract number R-40551 (Appendix G, page G1).

This project is located in Warrick County, which is currently in attainment for all criteria pollutants according to IDEM's website: <https://www.in.gov/idem/airquality/2339.htm>. Therefore, the conformity procedures of 40

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CFR Part 93 do not apply.

This project is of a type qualifying as a categorical exclusion (Group 1) under 23 CFR 771.117(c), or exempt under the Clean Air Act conformity rule under 40 CFR 93.126, and as such, a Mobile Source Air Toxics analysis is not required.

SECTION F - NOISE

Noise **Yes** **No**
 Is a noise analysis required in accordance with FHWA regulations and INDOT's traffic noise policy?

	No	Yes/ Date
ES Review of Noise Analysis	X	

Remarks: This project is a Type III project. In accordance with 23 CFR 772 and the current *Indiana Department of Transportation Traffic Noise Analysis Procedure*, this action does not require a formal noise analysis.

SECTION G – COMMUNITY IMPACTS

Regional, Community & Neighborhood Factors

Will the proposed action comply with the local/regional development patterns for the area?	Yes	No
	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Will the proposed action result in substantial impacts to community cohesion?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Will the proposed action result in substantial impacts to local tax base or property values?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Will construction activities impact community events (festivals, fairs, etc.)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Does the community have an approved transition plan?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
If No, are steps being made to advance the community's transition plan?	<input type="checkbox"/>	<input type="checkbox"/>
Does the project comply with the transition plan? (explain in the remarks box)	<input type="checkbox"/>	<input type="checkbox"/>
		N/A
		N/A

Remarks: This project will benefit the community by providing a structurally and hydraulically sufficient structure that will ensure continued passage for motorists on SR 62 over UNT to Otter Creek. The project is not anticipated to impact the tax base for the area or result in a division of the community. There are no long-term, foreseeable economic impacts from the project.

Within the project area, SR 62 is a rural route with no cities or towns, sidewalks, and/or curbs. Therefore, this project is not required to have a transition plan.

Indirect and Cumulative Impacts

Will the proposed action result in substantial indirect or cumulative impacts? **Yes** **No**

Remarks: Indirect impacts are effects which are caused by the action and are later in time or farther removed in distance but are still reasonably foreseeable. Indirect effects may include growth inducing effects and other effects related to induced changes in the pattern of land use, population density, or growth rate. Cumulative impacts affect the environment which result from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency or person undertakes such actions.

There have been no significant effects identified which could be caused by the proposed project and which will emerge later in time or farther removed in distance in regards to indirect impacts. In addition, there have been

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no significant effects identified which may induce changes in the pattern of land use, population density or growth rate, or related effects on air and water or other natural systems, including ecosystems. Additionally, in regard to cumulative impacts, no significant impacts on the environment have been identified which could result from the incremental impact of the proposed project when added to other past, present, and reasonably foreseeable future actions. This project involves the replacement of Culvert No. 062-087-48.79. As such, this project will not cause any indirect or cumulative impacts. Furthermore, this project will not result in any positive or negative impacts to the community or economy.

Public Facilities & Services

Will the proposed action result in substantial impacts on health and educational facilities, public and private utilities, emergency services, religious institutions, airports, public transportation or pedestrian and bicycle facilities? *Discuss how the maintenance of traffic will affect public facilities and services.*

Yes	No
<input checked="" type="checkbox"/>	<input type="checkbox"/>

Remarks: Based on a desktop review, a site visit on October 11, 2018 by GAI Consultants, the aerial map of the project area (Appendix B, page B3), and the RFI report, (Appendix E, pages E1 to E9), there are no public facilities within the 0.5 mile search radius. There are no public facilities within or adjacent to the project area. Access to all properties will be maintained during construction. Therefore, no impacts are expected.

Early Coordination letters were sent on August 8, 2018 to AT&T, Boonville Chandler Natural Gas, the Town of Tennyson, Vectren, Citizens Energy Group and Veolia Water. Vectren – Distribution Electric responded on September 6, 2018 stating that they have an overhead electric conductor and facilities within the project area. AT&T responded on January 25, 2019 stating that there are two aerial copper cables on AT&T owned poles on the south side of SR 62. Boonville Chandler Natural Gas responded on February 21, 2019 stating that there is a 2-inch plastic high pressure (35 PSI) gas main on the south side of SR 62 and a 4-inch steel high pressure valve (400PSI) on the north side of SR 62. Utility coordination will be ongoing as this project advances.

It is the responsibility of the project sponsor to notify school corporations and emergency services at least two weeks prior to any construction that would block or limit access.

Environmental Justice (EJ) (Presidential EO 12898)

During the development of the project were EJ issues identified?

<input type="checkbox"/>	<input checked="" type="checkbox"/>
--------------------------	-------------------------------------

Does the project require an EJ analysis?

<input checked="" type="checkbox"/>	<input type="checkbox"/>
-------------------------------------	--------------------------

If YES, then:

Are any EJ populations located within the project area?

<input type="checkbox"/>	<input checked="" type="checkbox"/>
--------------------------	-------------------------------------

Will the project result in adversely high or disproportionate impacts to EJ populations?

<input type="checkbox"/>	<input checked="" type="checkbox"/>
--------------------------	-------------------------------------

Remarks: Under FHWA Order 6640.23A, FHWA and the project sponsor, as a recipient of funding from FHWA, are responsible to ensure that their programs, policies, and activities do not have a disproportionately high and adverse effect on minority or low-income populations. Per the current INDOT Categorical Exclusion Manual, an Environmental Justice (EJ) Analysis is required for any project that has two or more relocations or 0.5 acre of additional permanent right-of-way. The project will require approximately 0.524 acre of permanent right-of-way from three parcels on the north side of SR 62 and one parcel on the south side of SR 62. Therefore, an EJ Analysis is required.

Potential EJ impacts are detected by locating minority and low-income populations relative to a reference population to determine if populations of EJ concern exists and whether there could be disproportionately high and adverse impacts to them. The reference population may be a county, city or town and is called the community of comparison (COC). In this project, the COC is Warrick County, Indiana. The community that overlaps the project area is called the affected community (AC). In this project, the AC is Census Tracts 301. An AC has a population of concern for EJ if the population is more than 50% minority or low-income or if the low-income or minority population is 125% of the COC. Data from the US Census Bureau, 2013 – 2017 American Community Survey 5 Year Estimates was obtained from the US Census Bureau Website <https://factfinder.census.gov/> on January 24, 2020 by GAI. The data collected for minority and low-income populations within the AC are summarized in the below table.

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Table: Minority and Low-Income Data (US Census Bureau, ACS 5-year estimates 2013-2017)		
	COC – Warrick County	AC-1 - Census Tract 301
Percent Minority	7.20%	0.27%
125% of COC	9.00	AC < 125% COC
EJ Population of Concern		No
Percent Low-Income	7.69%	9.20%
125% of COC	9.61%	AC < 125% COC
EJ Population of Concern		No

AC-1, Census Tract 301 has a percent minority of 0.27% which is below 50% and is below the 125% COC threshold. Therefore, this AC does not contain minority populations of EJ concern.

AC-1, Census Tract 301 has a percent low-income of 9.20% which is below 50% and is below the 125% COC threshold. Therefore, this AC does not contain low-income populations of EJ concern.

Conclusion

The census data sheets, map, and calculations can be found in Appendix H, pages H1 to H4. No further environmental justice analysis is warranted.

Relocation of People, Businesses or Farms

Will the proposed action result in the relocation of people, businesses or farms?
 Is a Business Information Survey (BIS) required?
 Is a Conceptual Stage Relocation Study (CSRS) required?
 Has utility relocation coordination been initiated for this project?

Yes	No
<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>

Number of relocations: Residences: 0 Businesses: 0 Farms: 0 Other: 0

If a BIS or CSRS is required, discuss the results in the remarks box.

Remarks: No relocations of people, businesses, or farms will take place as a result of this project.

SECTION H – HAZARDOUS MATERIALS & REGULATED SUBSTANCES

Hazardous Materials & Regulated Substances (Mark all that apply)

Red Flag Investigation
 Phase I Environmental Site Assessment (Phase I ESA)
 Phase II Environmental Site Assessment (Phase II ESA)
 Design/Specifications for Remediation required?

Documentation

<input checked="" type="checkbox"/>
<input type="checkbox"/>
<input type="checkbox"/>
<input type="checkbox"/>

No Yes/ Date

ES Review of Investigations		September 19, 2019
------------------------------------	--	--------------------

Include a summary of findings for each investigation.

Remarks: Based on a review of GIS and available public records, a Red Flag Investigation (RFI) was approved on September 19, 2019 by INDOT (Appendix E, pages E1 to E9). No sites with hazardous material concerns (hazmat sites) or sites involved with regulated substances were identified in or within 0.5 mile of the project area. Further investigation for hazardous material concerns or regulated substances is not required at this time.

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SECTION I – PERMITS CHECKLIST

Permits (mark all that apply)

Likely Required

Army Corps of Engineers (404/Section10 Permit)

Individual Permit (IP)	<input type="checkbox"/>
Nationwide Permit (NWP)	<input type="checkbox"/>
Regional General Permit (RGP)	X
Pre-Construction Notification (PCN)	<input type="checkbox"/>
Other	<input type="checkbox"/>
Wetland Mitigation required	<input type="checkbox"/>
Stream Mitigation required	<input type="checkbox"/>

IDEM

Section 401 WQC	X
Isolated Wetlands determination	<input type="checkbox"/>
Rule 5	<input type="checkbox"/>
Other	<input type="checkbox"/>
Wetland Mitigation required	<input type="checkbox"/>
Stream Mitigation required	X

IDNR

Construction in a Floodway	<input type="checkbox"/>
Navigable Waterway Permit	<input type="checkbox"/>
Lake Preservation Permit	<input type="checkbox"/>
Other	<input type="checkbox"/>
Mitigation Required	<input type="checkbox"/>

US Coast Guard Section 9 Bridge Permit

Others (Please discuss in the remarks box below)

<input type="checkbox"/>
<input type="checkbox"/>
<input type="checkbox"/>

Remarks:

The following permits will likely be needed for this project:

- IDEM Individual 401 Water Quality Certification (WQC) – An Individual Section 401 WQC will likely be required from IDEM as stream impacts exceed 300 linear ft. and stream mitigation will likely be required.
- USACE 404 Regional General Permit (RGP): A Section 404 RGP from USACE is anticipated as impacts to UNT to Otter Creek and UNT 1 will be necessary. However, stream mitigation with the USACE will not be required as stream impacts are less than 1,500 linear ft.

Applicable recommendations provided by the IDNR and IDEM are included in the *Environmental Commitments* section of this document. If permits are found to be necessary, the conditions of the permit will be requirements of the project and will supersede these recommendations.

An early coordination letter was sent to the IDNR-DFW on November 8, 2018 (Appendix C, pages C1 to C2). The IDNR-DFW responded on December 7, 2018 (Appendix C, pages C21 to C23) stating “Formal approval by the DNR under regulatory programs administered by the Division of Water is not required for this project.”

Early coordination was accomplished electronically with IDEM on November 8, 2018. They provided a standard automated response (Appendix C, pages C5 to C13) with a list of standardized recommendations and permitting requirements regarding impacts to water and biotic quality.

It is the responsibility of the project sponsor to identify and obtain all required permits.

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SECTION J- ENVIRONMENTAL COMMITMENTS

The following information should be provided below: List all commitments, name of agency/organization requesting the commitment(s) and indicating which are firm and which are for further consideration. The commitments should be numbered.

Remarks:

Firm:

1. If the scope of work or permanent or temporary right-of-way amounts change, the INDOT Environmental Services Division (ESD) and the INDOT District Environmental Section will be contacted immediately. (INDOT ESD and INDOT Vincennes District)
2. It is the responsibility of the project sponsor to notify school corporations and emergency services at least two weeks prior to any construction that would block or limit access. (INDOT ESD)
3. Structure CV 062-087-48.79 located on SR 62 over UNT to Otter Creek has shown no evidence of use (for example, nests) by a bird species protected under the Migratory Bird Treaty Act (MBTA) during previous inspections. However, the structure is located over or near water which is preferred habitat for migratory birds. Avoidance and minimization measures must be implemented prior to the start of and during the nesting season. Nests without eggs or young should be removed prior to construction during the non-nesting season (September 8 – April 30) and during the nesting season if no eggs or young are present. Nests with eggs or young cannot be removed or disturbed during the nesting season (May 1 – September 7). Nests with eggs or young should be screened or buffered from active construction. Details of the required procedures are outlined in the "Potential Migratory Bird on Structure Unique Special Provision". (INDOT EWPO)
4. USFWS Bridge/Structure Assessment shall take place no earlier than two (2) years prior to the start of construction. If construction will begin after October 11, 2020 an inspection of the structure, by a qualified individual, must be performed. Inspection of the structure should check for presence of bats/bat indicators and/or presence of birds. The results of the inspection must indicate no signs of bats or birds. If signs of bats or birds are documented during this inspection, the INDOT District Environmental Manager must be contacted immediately. (INDOT ES)
5. GENERAL AMM 1: Ensure all operators, employees, and contractors working in areas of known or presumed bat habitat are aware of all FHWA/FRA/FTA (Transportation Agencies) environmental commitments, including all applicable AMM's. (USFWS)
6. LIGHTING AMM 1: Direct temporary lighting away from suitable habitat during the active season. (USFWS)
7. TREE REMOVAL AMM 1: Modify all phases/aspects of the project (e.g., temporary work areas, alignments) to avoid tree removal. (USFWS)
8. TREE REMOVAL AMM 2: Apply time of year restrictions for tree removal when bats are not likely to be present, or limit tree removal to 10 or fewer trees per project at any time of year within 100 feet of existing road/rail surface and outside of documented roosting/foraging habitat or travel corridors; visual emergence survey must be conducted with no bats observed. (USFWS)
9. TREE REMOVAL AMM 3: Ensure tree removal is limited to that specified in project plans and ensure that contractors understand clearing limits and how they are marked in the field (e.g., install bright colored flagging/fencing prior to any tree clearing to ensure contractors stay within clearing limits). (USFWS)
10. TREE REMOVAL AMM 4: Do not remove documented Indiana bat or NLEB roosts that are still suitable for roosting, or trees within 0.25 miles of roosts, or documented foraging habitat any time of year. (USFWS)

For Consideration:

1. Do not cut any trees suitable for Indiana bat or Northern Long-eared bat roosting (greater than 3 inches dbh, living or dead, with loose hanging bark, or with cracks, crevices, or cavities) from April 1 through September 30. (IDNR-DFW)
2. Do not excavate in the low flow area except for the placement of piers, foundations, and riprap, or removal of the old structure. (IDNR-DFW)
3. Do not construct any temporary runarounds, causeways, cofferdams, pump around or stream diversion systems. (IDNR-DFW)
4. Use minimum average 6-inch graded riprap stone extended below the normal water level to provide habitat for aquatic organisms in the voids. (IDNR-DFW)
5. Plant native hardwood trees along the top of the bank and right-of way to replace the vegetation destroyed during construction. (IDNR-DFW)
6. Post "Do Not Mow or Spray" signs along the right-of-way. (IDNR-DFW)

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Des. No. 1702071

7. If box or pipe culverts are used, the bottoms should be buried to a minimum of 6" (or 20% of the culvert height/pipe diameter, whichever is greater up to a maximum of 2') below the stream bed elevation to allow a natural streambed to form within or under the crossing structure. Crossings should: span the entire channel; width (a minimum of 1.2 times the OHWM width); maintain the natural stream substrate within the structure; have a minimum openness ratio (height x width/length) of 0.25; and have stream depth, channel width, and water velocities during low-flow conditions that are approximate to those in the natural stream channel. (IDNR-DFW)
8. The new, replacement, or rehabbed structure, and any bank stabilization under the structure should not create conditions that are less favorable for wildlife passage under the structure. (IDNR-DFW)
9. Riprap placed at the culvert's outlet should match the outlet/invert elevation at the upstream edge of the riprap apron. Smaller stone and fines should be mixed in to match the existing stream substrate particle distribution and provide impermeability of the riprap apron/substrate, so the flow does not percolate through the voids below the riprap apron's surface. The slope of the riprap should be no steeper than 20:1 from the lip of the culvert pipe to the streambed. Riprap on the inlet side should have a slope no steeper than 5:1. (IDNR-DFW)
10. Riprap can be used as stream bank toe protection and placed from the toe of the bank top to the ordinary high-water mark (OHWM). From the OHWM to the top of the bank, erosion control blankets, turf reinforcement mats and other similar materials should be seeded with native plants to allow a natural, vegetated stream bank to develop. (IDNR-DFW)
11. Impacts to non-wetland forest of one (1) acre or more should be mitigated at a minimum 2:1 ratio. If less than one acre of non-wetland forest is removed in a rural setting, replacement should be at a 1:1 ratio based on area. Impacts to non-wetland forest under one (1) acre in an urban setting should be mitigated by planting five trees, at least 2 inches in diameter-at-breast height (dbh), for each tree which is removed that is 10 inches dbh or greater (5:1 mitigation based on the number of large trees). (IDNR-DFW)
12. Restrict below low-water work in streams to placement of culverts, piers, pilings and/or footings, shaping of the spill slopes around the bridge abutments, and placement of riprap. (USFWS)
13. Culverts should span the active stream channel, should be either embedded or a 3-sided or open-arch culvert, and be installed where practicable on an essentially flat slope. When an open-bottomed culvert or arch is used in a stream, which has a good natural bottom substrate, such as gravel, cobbles and boulders, the existing substrate should be left undisturbed beneath the culvert to provide natural habitat for the aquatic community. (USFWS)
14. Minimize the extent of hard armor (riprap) in bank stabilization by using bioengineering techniques whenever possible. If rip rap is utilized for bank stabilization, extend it below low-water elevation to provide aquatic habitat. (USFWS)
15. Avoid all work within the inundated part of the stream channel (in perennial streams and larger intermittent streams) during the fish spawning season (April 1 through June 30), except for work within sealed structures such as caissons or cofferdams that were installed prior to the spawning season. No equipment shall be operated below Ordinary High-Water Mark during this time unless the machinery is within the caissons or on the cofferdams. (USFWS)
16. Evaluate wildlife crossings under bridge/culverts projects in appropriate situations. Suitable crossings include flat areas below bridge abutments with suitable ground cover, high water shelves in culverts, amphibian tunnels and diversion fencing. (USFWS)

Indiana Department of Transportation

County Warrick

Route SR 62

Des. No. 1702071

SECTION K- EARLY COORDINATION

Please list the date coordination was sent and all agencies that were contacted as a part of the development of this Environmental Study. Also, include the date of their response or indicate that no response was received. INDOT and FHWA are automatically considered early coordination participants and should only be listed if a response is received.

Remarks:

Early coordination letters were sent to the below listed agencies. If no response was received, it was assumed the agency did not feel the project would result in substantial impacts. Please see a copy of the early coordination letter and agencies responses in Appendix C. INDOT and FHWA are automatically considered early coordination participants and are only listed if a response is received.

The following agencies/individuals were contacted during early coordination.

Agency	Coordination Sent	Response Received	Appendix Page(s)
U.S. Fish Wildlife Service	11/8/2018	11/14/2018	C24 to C26
Natural Resources Conservation Service	11/8/2018	11/19/2018	C18
Department of the Army, Louisville District, Corps of Engineers	11/8/2018	No Response	-
National Park Service, Midwest Regional Office	11/8/2018	No Response	-
U.S. Department of Housing & Urban Development, Chicago Regional Office	11/8/2018	No Response	-
Indiana Geological Survey, Environmental Geology Section	11/8/2018	11/8/2018	C15 to C17
IDNR, Division of Fish and Wildlife	11/8/2018	1/21/2018	C21 to C23
IDEM	11/26/2018	11/27/2018	C5 to C13
INDOT Aviation Section	11/8/2018	No Response	-
INDOT, Public Hearings	11/8/2018	11/15/2018	C19 to C20
Warrick County Surveyor	11/8/2018	No Response	-
Warrick County Highway Department	11/8/2018	No Response	-
Floodplain Administrator	5/14/2019	No Response	-
IDEM, Office of Water Quality	8/21/2019	9/21/2019	C14
Evansville Metropolitan Planning Organization	12/12/2019	No Response	-

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Appendix A

INDOT Supporting Documentation

Item	Appendix Page
Threshold Chart	A1

Categorical Exclusion Level Thresholds

	PCE	Level 1	Level 2	Level 3	Level 4 ¹
Section 106	Falls within guidelines of Minor Projects PA	“No Historic Properties Affected”	“No Adverse Effect”	-	“Adverse Effect” Or Historic Bridge involvement ²
Stream Impacts	No construction in waterways or water bodies	< 300 linear feet of stream impacts	≥ 300 linear feet of stream impacts	-	Individual 404 Permit
Wetland Impacts	No adverse impacts to wetlands	< 0.1 acre	-	< 1 acre	≥ 1 acre
Right-of-way³	Property acquisition for preservation only or none	< 0.5 acre	≥ 0.5 acre	-	-
Relocations	None	-	-	< 5	≥ 5
Threatened/Endangered Species (Species Specific Programmatic for Indiana bat & northern long eared bat)	“No Effect”, “Not likely to Adversely Affect” (Without AMMs ⁴ or with AMMs required for all projects ⁵)	“Not likely to Adversely Affect” (With any other AMMs)	-	“Likely to Adversely Affect”	Project does not fall under Species Specific Programmatic
Threatened/Endangered Species (Any other species)	Falls within guidelines of USFWS 2013 Interim Policy	“No Effect”, “Not likely to Adversely Affect”	-	-	“Likely to Adversely Affect”
Environmental Justice	No disproportionately high and adverse impacts	-	-	-	Potential ⁶
Sole Source Aquifer	Detailed Assessment Not Required	-	-	-	Detailed Assessment
Floodplain	No Substantial Impacts	-	-	-	Substantial Impacts
Coastal Zone Consistency	Consistent	-	-	-	Not Consistent
National Wild and Scenic River	Not Present	-	-	-	Present
New Alignment	None	-	-	-	Any
Section 4(f) Impacts	None	-	-	-	Any
Section 6(f) Impacts	None	-	-	-	Any
Added Through Lane	None	-	-	-	Any
Permanent Traffic Alteration	None	-	-	-	Any
Coast Guard Permit	None	-	-	-	Any
Noise Analysis Required	No	-	-	-	Yes
Air Quality Analysis Required	No	-	-	-	Yes ⁷
Approval Level <ul style="list-style-type: none"> • District Env. Supervisor • Env. Services Division • FHWA 	Concurrence by INDOT District Environmental or Environmental Services	Yes	Yes	Yes Yes	Yes Yes Yes

¹Coordinate with INDOT Environmental Services. INDOT will then coordinate with the appropriate FHWA Environmental Specialist.

²Any involvement with a bridge processed under the Historic Bridge Programmatic Agreement.

³Permanent and/or temporary right-of-way.

⁴AMMs = Avoidance and Mitigation Measures.

⁵AMMs determined by the IPAC decision key to be needed that are listed in the USFWS *User’s Guide for the Range-wide Programmatic Consultation for Indiana bat and Northern long-eared bat* as “required for all projects”.

⁶Potential for causing a disproportionately high and adverse impact.

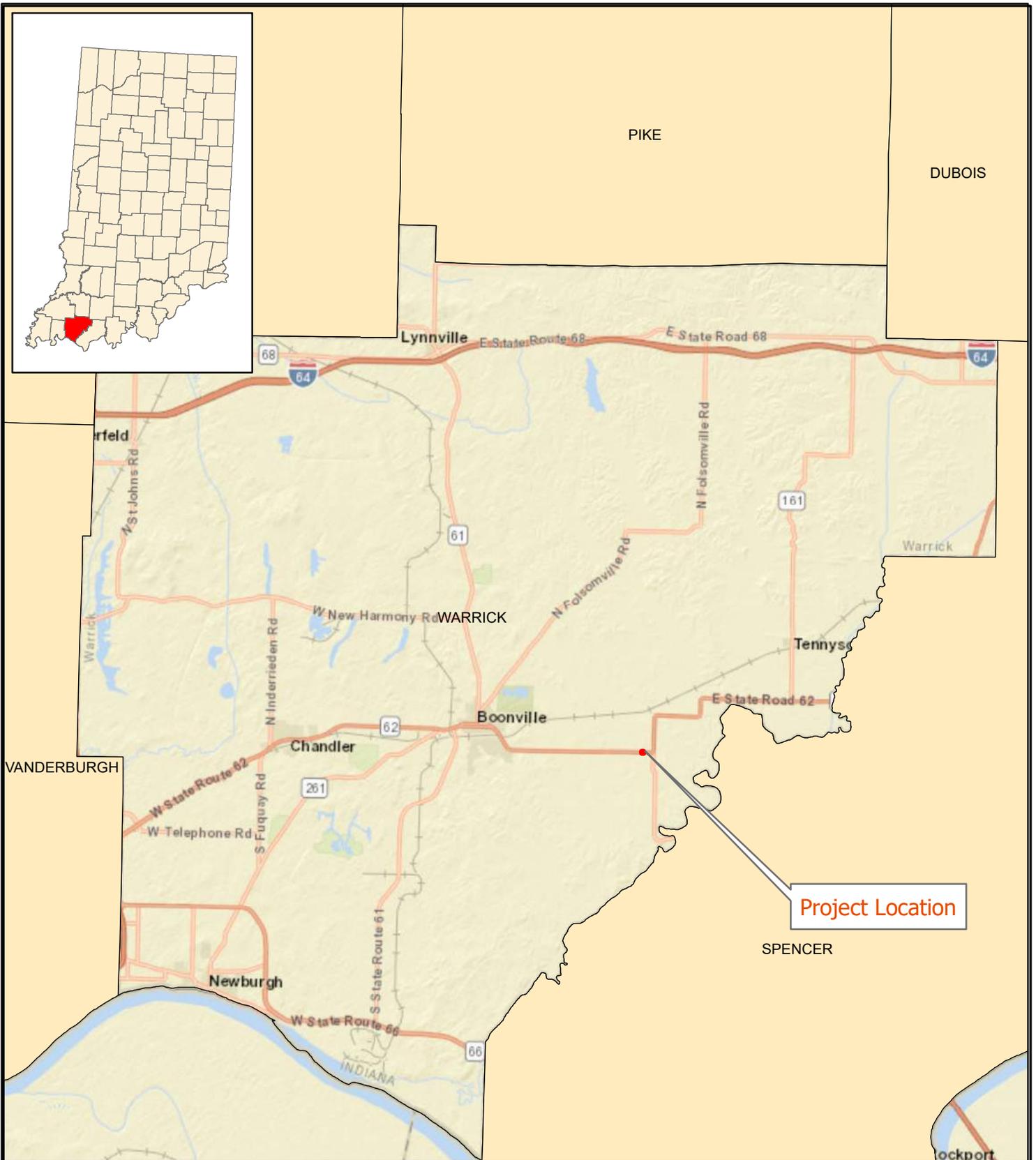
⁷Hot Spot Analysis and/or MSAT Quantitative Emission Analysis.

*Substantial public or agency controversy may require a higher-level NEPA document.

Appendix B

Graphics

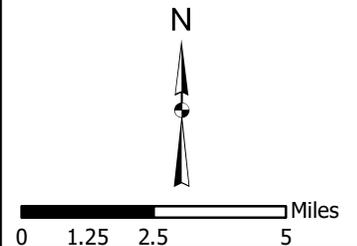
Item	Appendix Page
Maps of the Project Area	B1 to B3
Photo Key Map	B4
Photographs of the Project Area	B5 to B9
Project Plans	B10 to B15



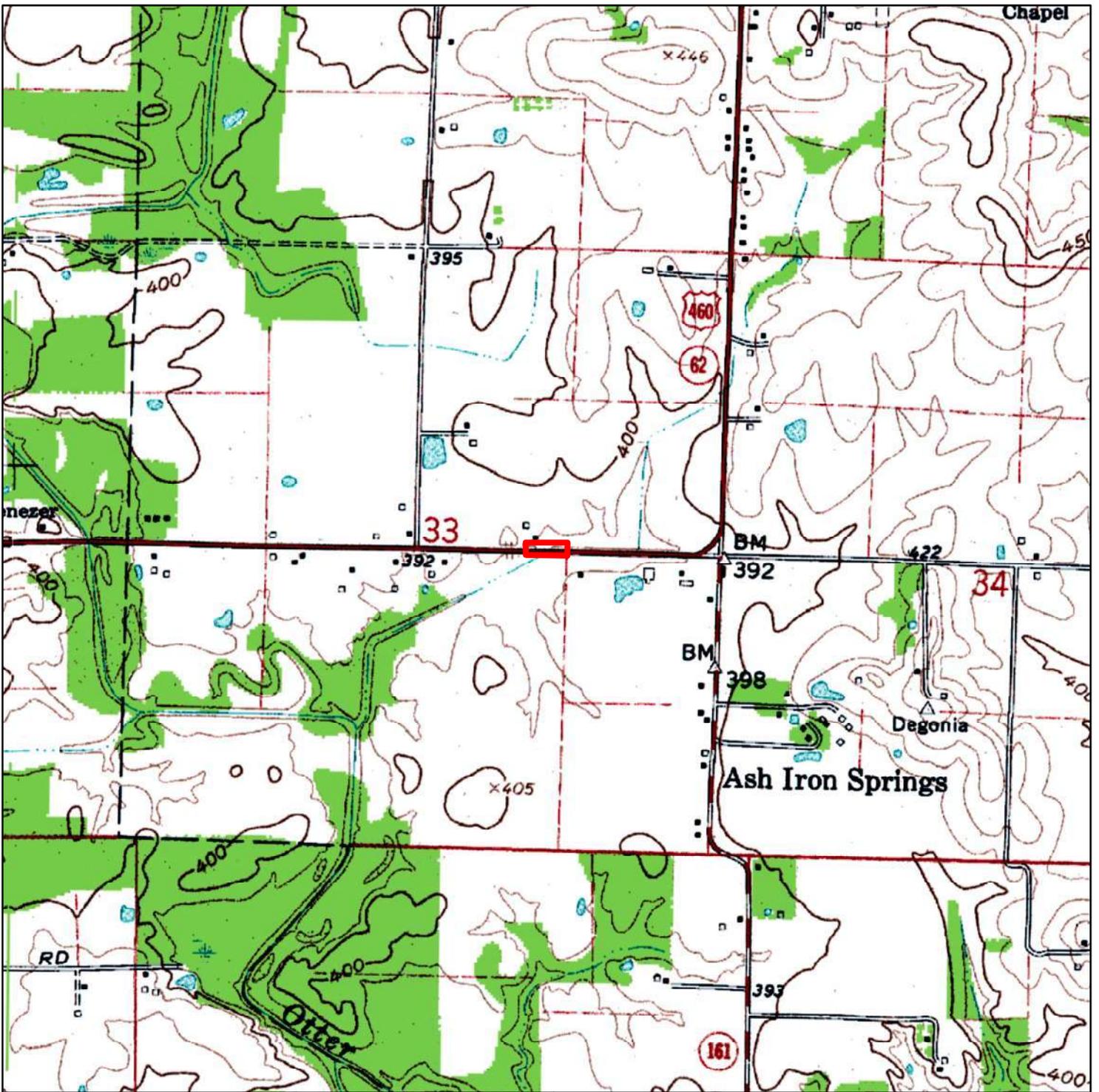
Project Location



State Location Map
SR 62 over UNT Otter Creek
Small Structure Replacement Project
Warrick County, Indiana
Des 1702071



Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, © OpenStreetMap contributors, and the GIS User Community



USGS Topo Map

SR 62 over UNT Otter Creek
 Small Structure Replacement Project
 Warrick County, Indiana
 Des 1702071

 Study Area



0 600 1,200 2,400 Feet
 DE GONIA SPRINGS USGS 7.5 Minute Topo Map

Service Layer Credits: United States Geological Survey (USGS)

3



Aerial Location Map

SR 62 over UNT Otter Creek
 Small Structure Replacement Project
 Warrick County, Indiana
 Des 1702071

-  Interstate
-  US Roads
-  State Roads
-  Local Roads
-  Railroad
-  Study Area



Service Layer Credits: INDOT
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 Distribution Airbus DS



Photo Location Map

SR 62 over UNT Otter Creek
 Small Structure Replacement Project
 Warrick County, Indiana
 Des No. 1702071

- Study Area
- Interstate
- State Route
- US Route
- Local Road
- Railroad
- Photo Point
- Drainage Feature
- Delineated Streams



Service Layer Credits: INDOT
 © 2020 Microsoft Corporation © 2020 DigitalGlobe © CNES (2020) Distribution Airbus DS © 2020 HERE



Photo 1. Looking east down SR 62 west of the structure.



Photo 2. Looking west up SR 62 just west of the structure.



Photo 3. Looking northeast at the UNT to Otter Creek from the north side of the structure.



Photo 4. Looking northwest at a roadside ditch in the northwest quadrant of the project area.



Photo 5. Looking northeast at the northeast project quadrant. Also looking at the UNT to Otter Creek.



Photo 6. Looking west down SR 62 from the project structure.



Photo 7. Looking east down SR 62 from the project structure.



Photo 8. Looking south at the UNT to Otter Creek from the project structure.



Photo 9. Looking southeast at UNT-1 lined with riprap in the southeast quadrant.



Photo 10. Looking southwest from the structure at the southwest quadrant.



Photo 11. Looking southwest at UNT-1 located in the southeast quadrant.



Photo 12. Looking west down UNT-1 in the southeast quadrant from the UNT to Otter Creek.



Photo 13. Looking northeast from SR 62 at the UNT to Otter Creek located in the northeast quadrant.



Photo 14. Looking northwest at the UNT to Otter creek in the northeast quadrant.



Photo 15. Looking southwest at the structure and UNT to Otter Creek.



Photo 16. Looking north at the UNT to Otter Creek and the structure.



Photo 17. Looking north up the UNT to Otter Creek towards the structure.



Photo 18. Looking east down UNT-1 located in the southeast quadrant from the UNT to Otter Creek.

PROJECT	DESIGNATION
1700170	1700170
CONTRACT	1702071
R-40551	1701058
	1702072

CULVERT ASSETS		
DES. NO.	CULVERT ASSET ID	WORK TYPE
1700170	CV 161-087-10.46	Small Structure Replacement
1701058	CV 062-087-52.74	Small Structure Replacement
1702071	CV 062-087-48.79	Small Structure Replacement
1702072	CV 062-087-53.01	Small Structure Replacement

INDIANA DEPARTMENT OF TRANSPORTATION



ROAD PLANS

SMALL STRUCTURE REPLACEMENTS

PROJECT NO. 1700170 P.E.
 1700170 R/W
 1700170 CONST.

TRAFFIC DATA		DES. 1700170	
A.A.D.T.	(2022)	774	V.P.D.
A.A.D.T.	(2042)	559	V.P.D.
D.H.V	(10.3%)	69	V.P.H.
DIRECTIONAL DISTRIBUTION		51.5%(EB)	%
TRUCKS		9.0%	A.A.D.T.
		9.0%	D.H.V.

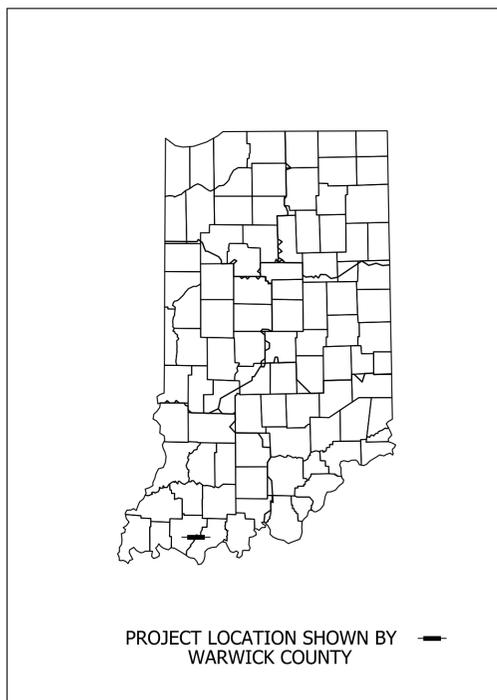
DESIGN DATA	
DESIGN SPEED	55 M.P.H.
PROJECT DESIGN CRITERIA	3R Non-Freeway
FUNCTIONAL CLASSIFICATION	Major Collector
RURAL/URBAN	Rural
TERRAIN	Level
ACCESS CONTROL	None

TRAFFIC DATA		DES. 1702071	
A.A.D.T.	(2022)	3980	V.P.D.
A.A.D.T.	(2042)	5362	V.P.D.
D.H.V	(10.3%)	143	V.P.H.
DIRECTIONAL DISTRIBUTION		49.8%(EB)	%
TRUCKS		7.0%	A.A.D.T.
		7.0%	D.H.V.

DESIGN DATA	
DESIGN SPEED	55 M.P.H.
PROJECT DESIGN CRITERIA	3R Non-Freeway
FUNCTIONAL CLASSIFICATION	Major Collector
RURAL/URBAN	Rural
TERRAIN	Level
ACCESS CONTROL	None

TRAFFIC DATA		DES. 1701058 DES. 1702072	
A.A.D.T.	(2022)	2351	V.P.D.
A.A.D.T.	(2042)	2883	V.P.D.
D.H.V	(12.3%)	317	V.P.H.
DIRECTIONAL DISTRIBUTION		49.8%(EB)	%
TRUCKS		8.0%	A.A.D.T.
		8.0%	D.H.V.

DESIGN DATA	
DESIGN SPEED	55 M.P.H.
PROJECT DESIGN CRITERIA	3R Non-Freeway
FUNCTIONAL CLASSIFICATION	Major Collector
RURAL/URBAN	Rural
TERRAIN	Level
ACCESS CONTROL	None



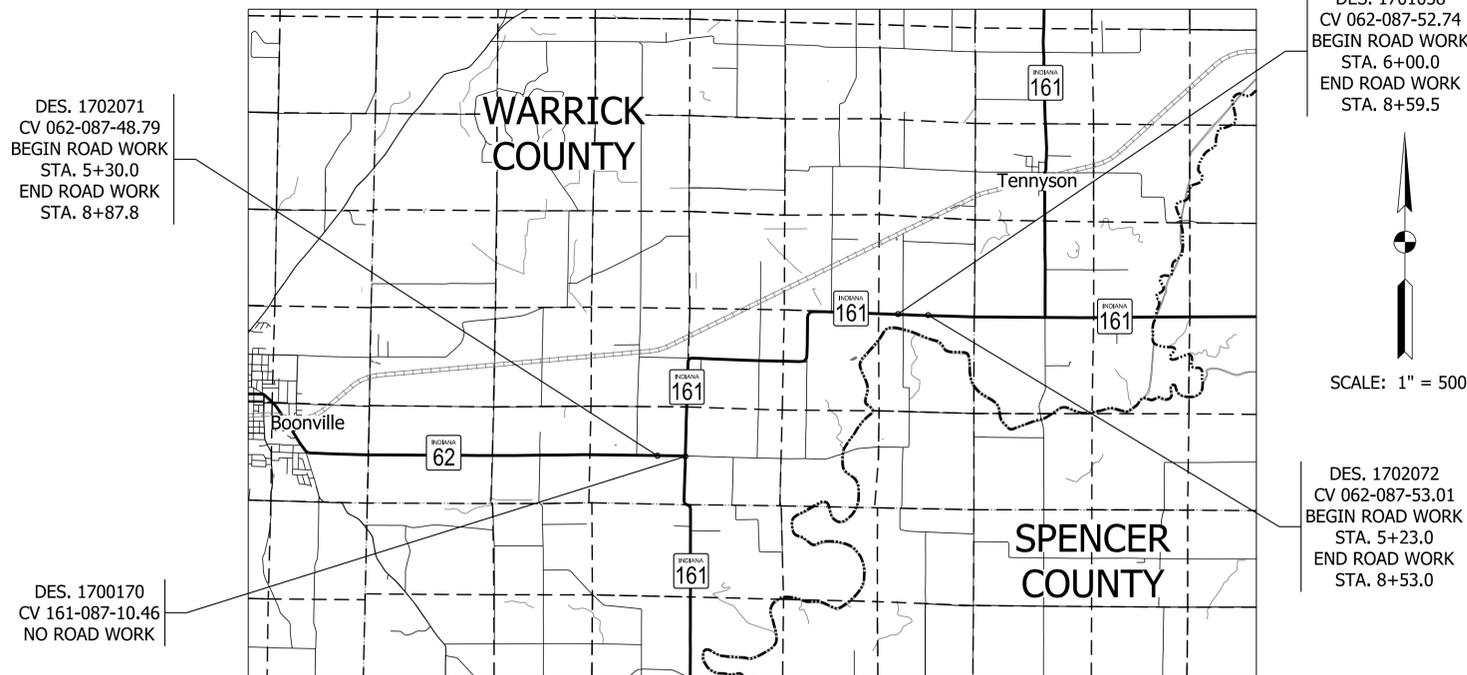
Four small structure replacements on SR 62 and SR 161.

Des. 1702071: Located 0.29 miles west of SR 62/SR 161 west junction, in Section 33, T-5-S, R-7-W, Skelton Township, Warrick County, Indiana

Des. 1700170: Located at the SR 62/SR 161 west junction, in Sections 33 & 34, T-5-S, R-7-W, Skelton Township, Warrick County, Indiana

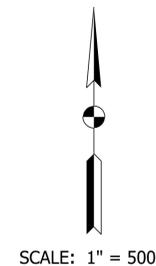
Des. 1701058 : Located 1.52 miles west of SR 62/SR 161 east junction, in Section 24 & 25, T-5-S, R-7-W, Skelton Township, Warrick County, Indiana

Des. 1702072: Located 1.20 miles west of SR 62/SR 161 east junction, in Section 24 & 25, T-5-S, R-7-W, Skelton Township, Warrick County, Indiana



LOCATION MAP
WARRICK AND SPENCER COUNTY

DES. 1701058
CV 062-087-52.74
BEGIN ROAD WORK
STA. 6+00.0
END ROAD WORK
STA. 8+59.5



DES. 1702072
CV 062-087-53.01
BEGIN ROAD WORK
STA. 5+23.0
END ROAD WORK
STA. 8+53.0

DES. 1701058	
GROSS LENGTH:	0.05 MI.
NET LENGTH:	0.05 MI.
MAX. GRADE:	0.30 %

DES. 1702071	
GROSS LENGTH:	0.07 MI.
NET LENGTH:	0.07 MI.
MAX. GRADE:	0.33 %

DES. 1702072	
GROSS LENGTH:	0.06 MI.
NET LENGTH:	0.06 MI.
MAX. GRADE:	2.20 %

LATITUDE: 87°11'24"W	LONGITUDE: 38°02'24"N	DES. 1700170
LATITUDE: 87°08'46"W	LONGITUDE: 38°03'40"N	DES. 1701058
LATITUDE: 87°11'31"W	LONGITUDE: 38°02'23"N	DES. 1702071
LATITUDE: 87°08'26"W	LONGITUDE: 38°03'39"N	DES. 1702072

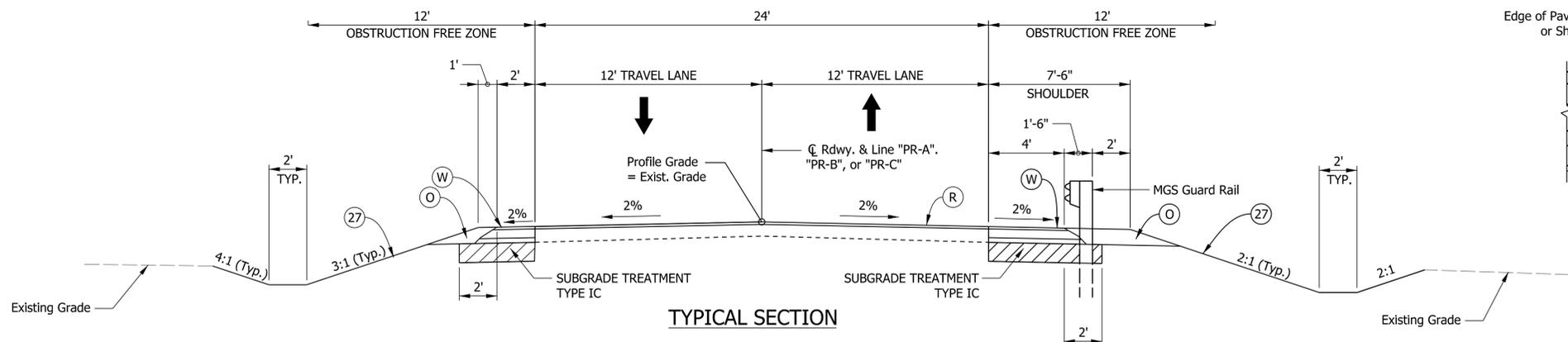
DES. 1700170
CV 161-087-10.46
NO ROAD WORK



PLANS PREPARED BY: GAI Consultants Inc. 317-570-6800 PHONE NUMBER
 CERTIFIED BY: _____ DATE
 APPROVED FOR LETTING: _____ DATE
 INDIANA DEPARTMENT OF TRANSPORTATION

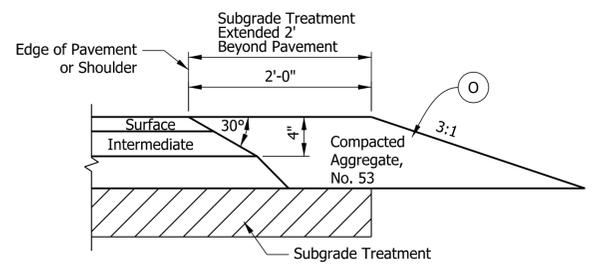
INDIANA DEPARTMENT OF TRANSPORTATION
STANDARD SPECIFICATIONS DATED 2020
TO BE USED WITH THESE PLANS

DESIGNATION	
1700170	
SHEETS	
SURVEY BOOK	1 of 37
PROJECT	
CONTRACT	R-40551
1700170	

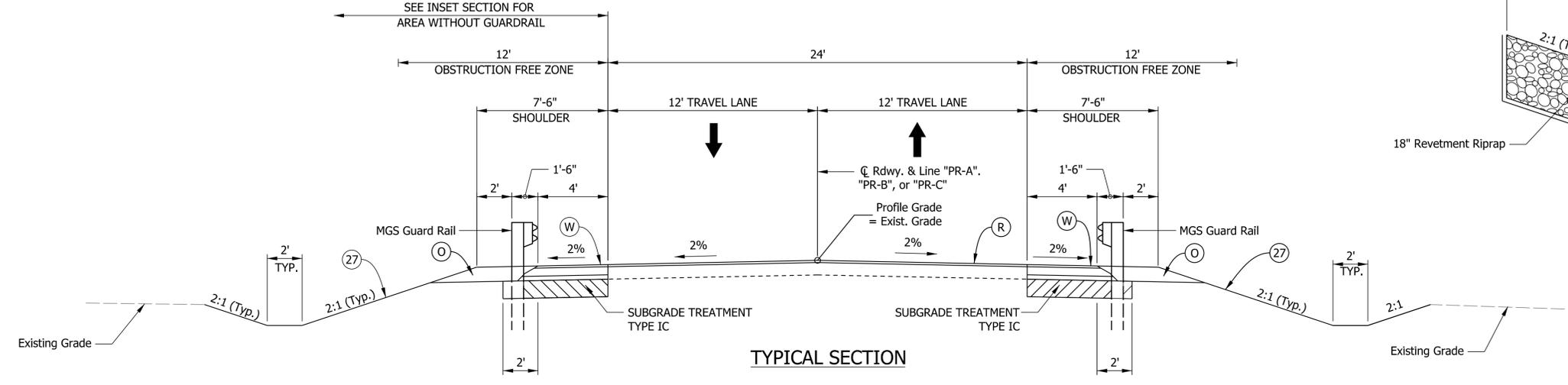


TYPICAL SECTION

Des. 1702071
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 Sta. 7+55 Line "PR-B" to Sta. 8+87.8 Line "PR-B" "Reverse"
 Des. 1702072
 Sta. 5+23 Line "PR-C" to Sta. 6+28 Line "PR-C"
 Sta. 7+48 Line "PR-C" to Sta. 8+53 Line "PR-C" "Reverse"

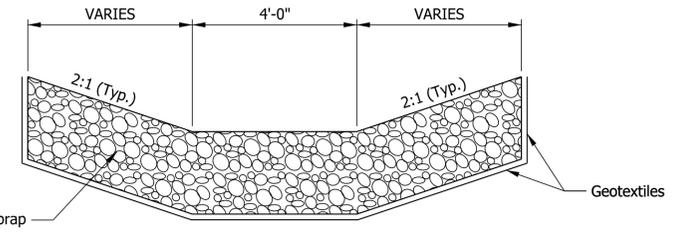


SAFETY EDGE ON HMA PAVEMENT
 NOT TO SCALE

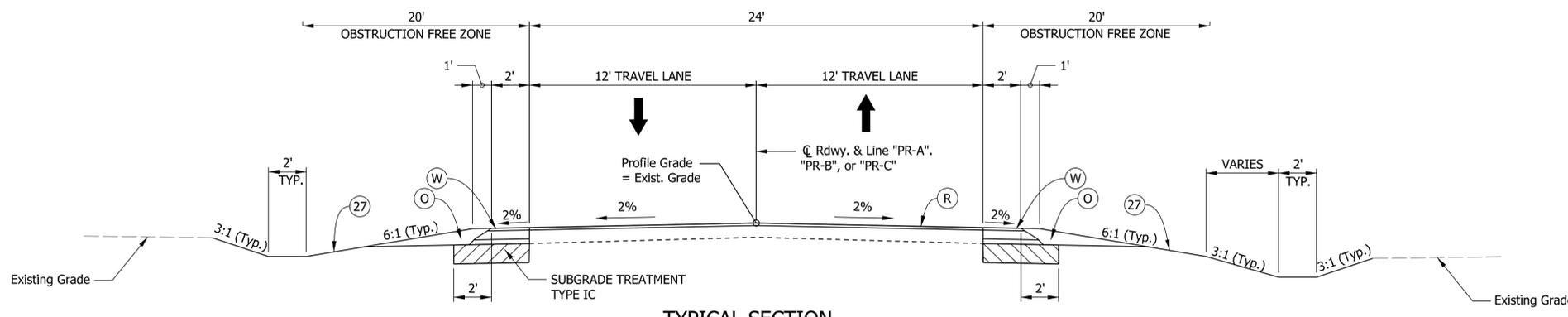


TYPICAL SECTION

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 Des. 1702072
 Sta. 6+28 Line "PR-C" to Sta. 7+48 Line "PR-C"



RIPRAP DITCH
 NOT TO SCALE



TYPICAL SECTION

Des. 1701058
 Sta. 6+00 Line "PR-A" to Sta. 6+40.8 Line "PR-A"
 Sta. 7+50 Line "PR-A" to Sta. 8+59.5 Line "PR-A" "Reverse"

LEGEND

- (R) MILLING, ASPHALT, 1 1/2" IN. ON
 165 LBS/SYS QC/QA-HMA, 3, 70, SURFACE, 9.5 MM
- (K) 165 LBS/SYS QC/QA-HMA, 3, 70, SURFACE, 9.5 MM
 330 LBS/SYS QC/QA-HMA, 3, 70, INTERMEDIATE, 19.0 MM ON
 825 LBS/SYS QC/QA-HMA, 3, 64, BASE, 25.0 MM
 (See Culvert Details for Limits)
- (O) COMPACTED AGGREGATE, No. 53 (10 IN. MAX.)
- (W) 165 LBS/SYS QC/QA-HMA, 3, 70, SURFACE, 9.5 MM ON
 WIDENING WITH HMA, TYPE B:
 330 LBS/SYS HMA INTERMEDIATE, 19.0 MM ON
 7.5" COMPACTED AGGREGATE, No. 53
 (Depth Equals Mainline HMA Thickness minus 4.5")
- (27) SEEDING, TYPE R

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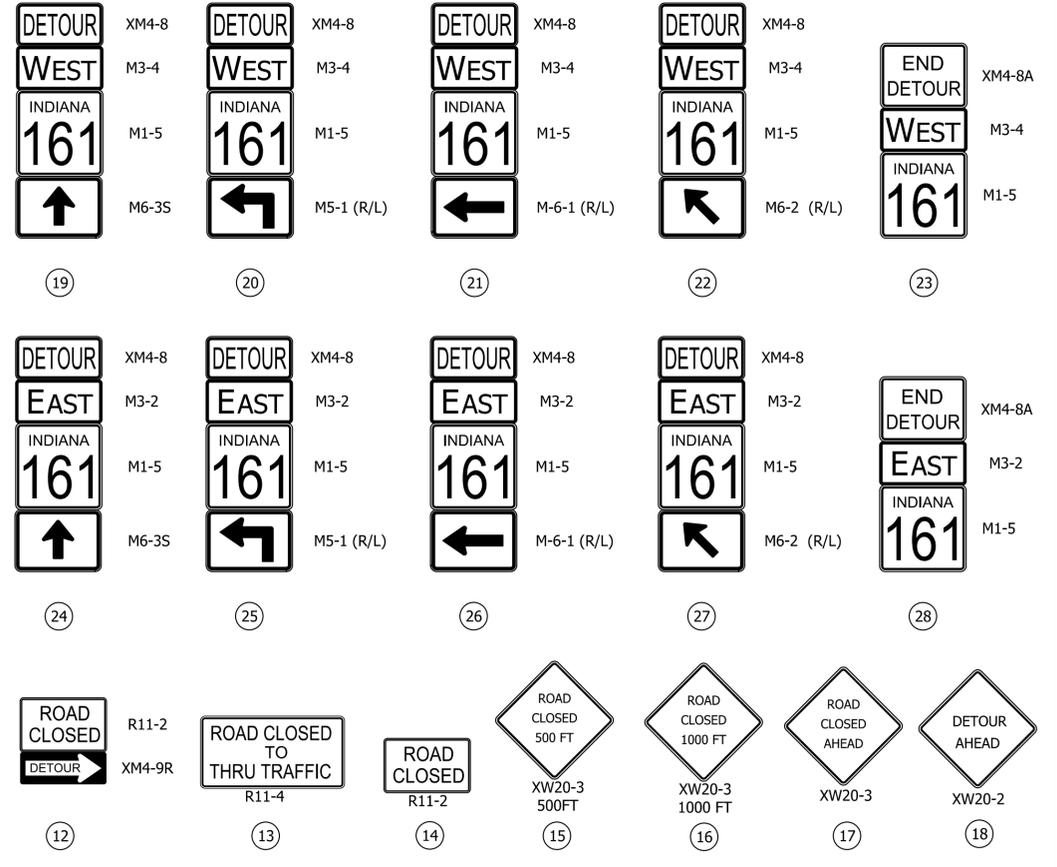
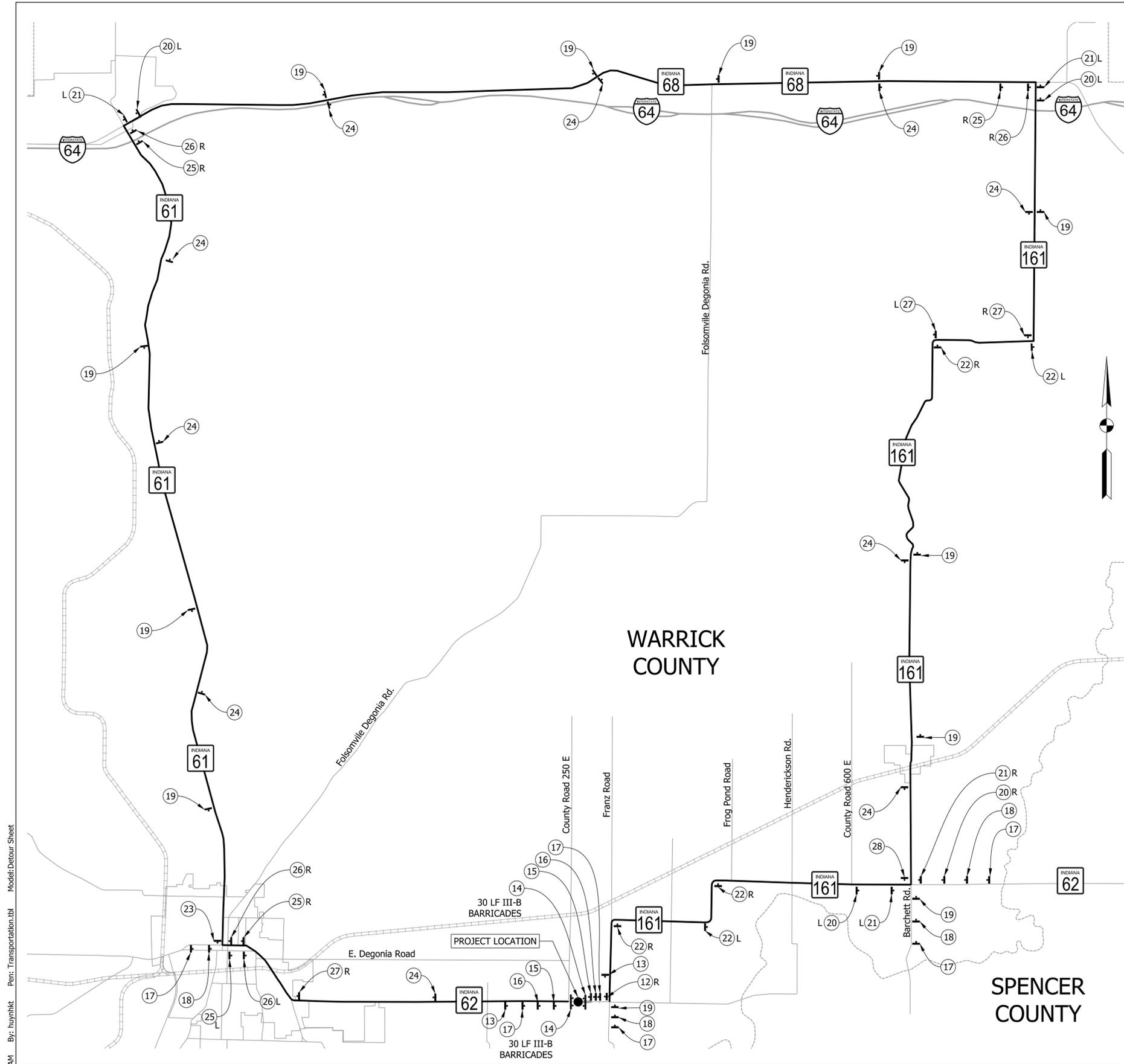


RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	DATE
DESIGNED: ARW	DRAWN: KTH	
CHECKED: BWC	CHECKED: BWC	

INDIANA
 DEPARTMENT OF TRANSPORTATION

TYPICAL SECTIONS

SCALE	BRIDGE FILE
1/4" = 1'	
VERTICAL SCALE	DESIGNATION
	1701058, 1702071, 1702072
SURVEY BOOK	SHEETS
	3 of 37
CONTRACT	PROJECT
R-40551	1700170



CONSTRUCTION SIGN SUMMARY TABLE

LEGEND	DESCRIPTION	SIGN TYPE	GENERAL	I (05)	II (06/08)	III (07)	MAX TOTAL
15	ROAD CLOSED 500 FT (XW20-3) (36"x36")	A		2	2	2	2
16	ROAD CLOSED 1000 FT (XW20-3) (36"x36")	A		2	2	2	2
17	ROAD CLOSED AHEAD (XW20-3) (36"x36")	A		6	6	5	6
18	DETOUR AHEAD (XW20-2) (36"x36")	A		5	4	5	4
80	BARRICADE, III-B	BARR		96	120	60	120
13	ROAD CLOSED TO THRU TRAFFIC - (R11-4)(60" x 30")	RCSA		1	1	2	2
12	ROAD CLOSURE SIGN ASSEMBLY - R11-2 & XM4-10(L/R)	RCSA		2	1	1	2
14	ROAD CLOSURE SIGN ASSEMBLY - R11-2	RCSA		2	4	2	4
2	ADVANCE TURN DETOUR ROUTE MARKER ASSEMBLY (NORTH)	DRMA		3			3
9	ADVANCE TURN DETOUR ROUTE MARKER ASSEMBLY (SOUTH)	DRMA		4			4
20	ADVANCE TURN DETOUR ROUTE MARKER ASSEMBLY (WEST)	DRMA			3	4	4
25	ADVANCE TURN DETOUR ROUTE MARKER ASSEMBLY (EAST)	DRMA			4	4	4
3	DIRECTIONAL DETOUR ROUTE MARKER ASSEMBLY (NORTH)	DRMA		3			3
10	DIRECTIONAL DETOUR ROUTE MARKER ASSEMBLY (SOUTH)	DRMA		4			4
21	DIRECTIONAL DETOUR ROUTE MARKER ASSEMBLY (WEST)	DRMA			3	4	4
26	DIRECTIONAL DETOUR ROUTE MARKER ASSEMBLY (EAST)	DRMA			4	4	4
1	CONFIRMING DETOUR ROUTE MARKER ASSEMBLY (NORTH)	DRMA		8			8
8	CONFIRMING DETOUR ROUTE MARKER ASSEMBLY (SOUTH)	DRMA		6			6
19	CONFIRMING DETOUR ROUTE MARKER ASSEMBLY (WEST)	DRMA			12	11	12
24	CONFIRMING DETOUR ROUTE MARKER ASSEMBLY (EAST)	DRMA			11	10	11
4	DIRECTIONAL DETOUR ROUTE MARKER ASSEMBLY (NORTH)	DRMA		3			3
7	DIRECTIONAL DETOUR ROUTE MARKER ASSEMBLY (SOUTH)	DRMA		3			3
22	DIRECTIONAL DETOUR ROUTE MARKER ASSEMBLY (WEST)	DRMA			2	5	5
27	DIRECTIONAL DETOUR ROUTE MARKER ASSEMBLY (EAST)	DRMA			3	3	3
6	DIRECTIONAL DETOUR ROUTE MARKER ASSEMBLY (SOUTH)	DRMA		1			1
5	END DETOUR ROUTE MARKER ASSEMBLY (NORTH)	DRMA		1			1
11	END DETOUR ROUTE MARKER ASSEMBLY (SOUTH)	DRMA		1			1
23	END DETOUR ROUTE MARKER ASSEMBLY (WEST)	DRMA			1	1	1
28	END DETOUR ROUTE MARKER ASSEMBLY (EAST)	DRMA			1	1	1
			GENERAL	MAX TOTAL		TOTAL	
MAX. TOTAL TYPE "A" SIGNS = GENERAL + MAX. PHASE =			0	+	14	=	14
MAX. TOTAL BARRICADE TYPE III-B = GENERAL + MAX. PHASE =			0	+	120	=	120
MAX. TOTAL ROAD CLOSURE SIGN ASSEMBLY (R11-2) = GENERAL + MAX. PHASE =			0	+	2	=	2
MAX. TOTAL ROAD CLOSURE SIGN ASSEMBLY (R11-3) = GENERAL + MAX. PHASE =			0	+	2	=	2
MAX. TOTAL DETOUR ROUTE MARKER ASSEMBLY = GENERAL + MAX. PHASE =			0	+	86	=	86

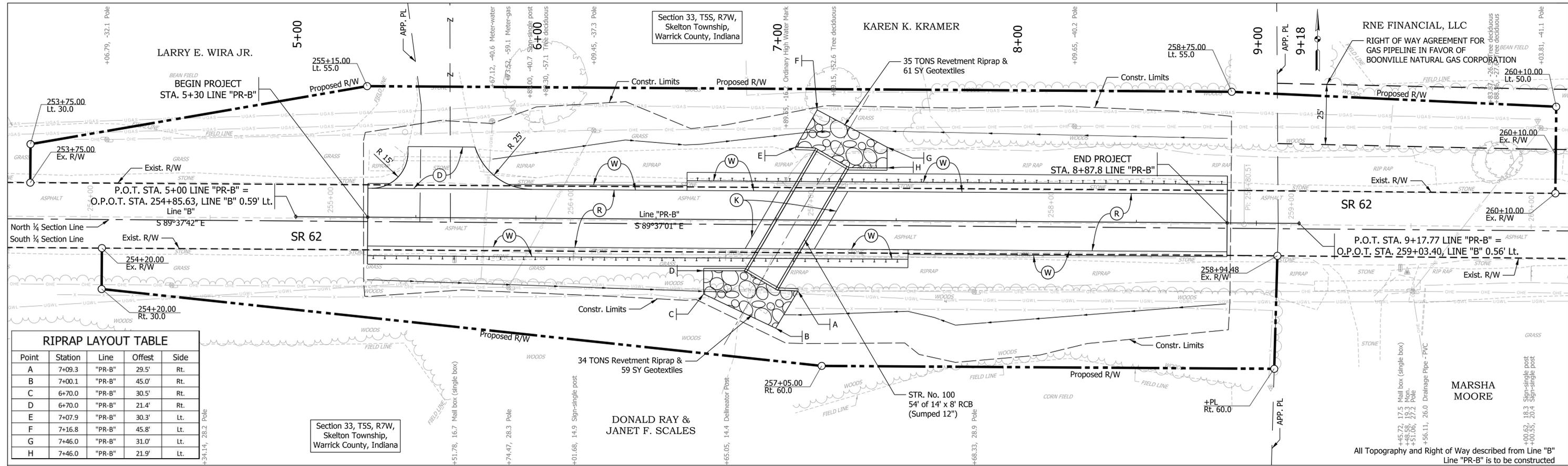
Plc1/2/2020 11:32:12 AM By: huythkt Pen: Transportation.tbl Model: Detour Sheet



RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE _____
 DESIGNED: ARW DRAWN: KTH
 CHECKED: BWC CHECKED: BWC

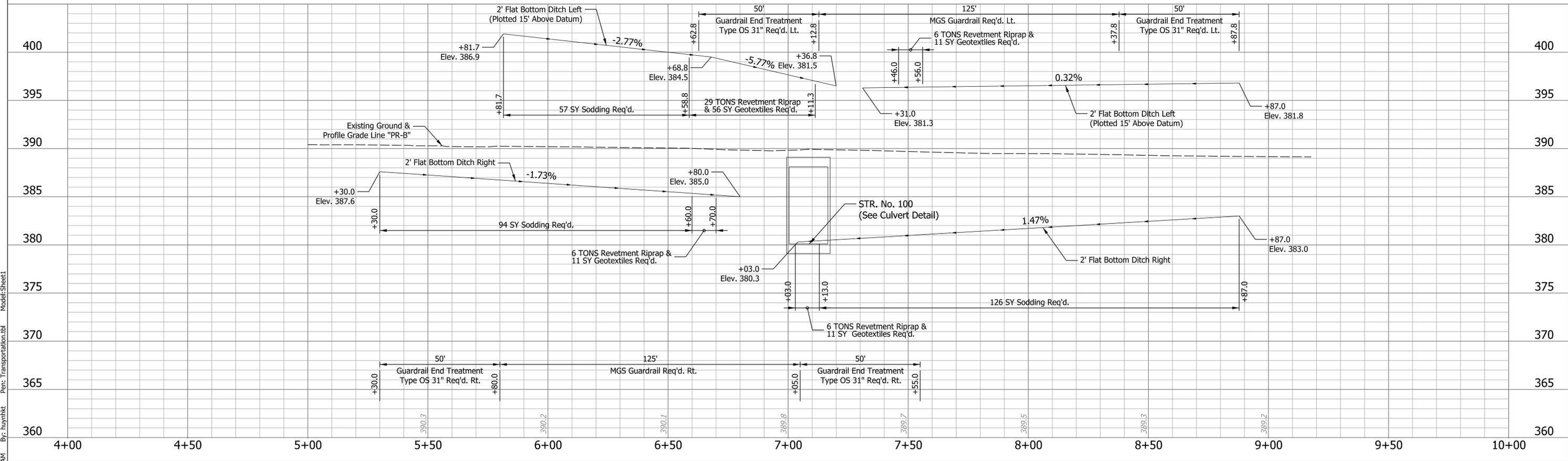
INDIANA DEPARTMENT OF TRANSPORTATION
 MAINTENANCE OF TRAFFIC DETOUR ROUTE

SCALE	ASSET NUMBER
1" = 3600'	CV 062-087-48.79
VERTICAL SCALE	DESIGNATION
	1702071
SURVEY BOOK	SHEETS
	4 of 37
CONTRACT	PROJECT
R-40551	1700170



RIPRAP LAYOUT TABLE

Point	Station	Line	Offset	Side
A	7+09.3	"PR-B"	29.5'	Rt.
B	7+00.1	"PR-B"	45.0'	Rt.
C	6+70.0	"PR-B"	30.5'	Rt.
D	6+70.0	"PR-B"	21.4'	Rt.
E	7+07.9	"PR-B"	30.3'	Lt.
F	7+16.8	"PR-B"	45.8'	Lt.
G	7+46.0	"PR-B"	31.0'	Lt.
H	7+46.0	"PR-B"	21.9'	Lt.



- LEGEND**
- (D) HMA for Approaches
165 #/syd HMA Surface Type B on
385 #/syd HMA Intermediate Type B on
Subgrade Treatment Type II
 - (R) MILL & OVERLAY (See Typical Section)
 - (W) WIDENING WITH HMA, TYPE B (See Typical Section)
 - (K) FULL DEPTH HMA (See Typical Section)



RECOMMENDED FOR APPROVAL

DESIGNED: ARW	DRAWN: KTH
CHECKED: BWC	CHECKED: BWC

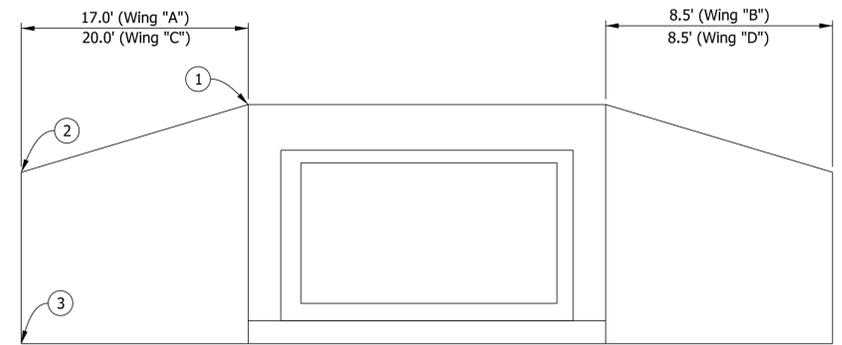
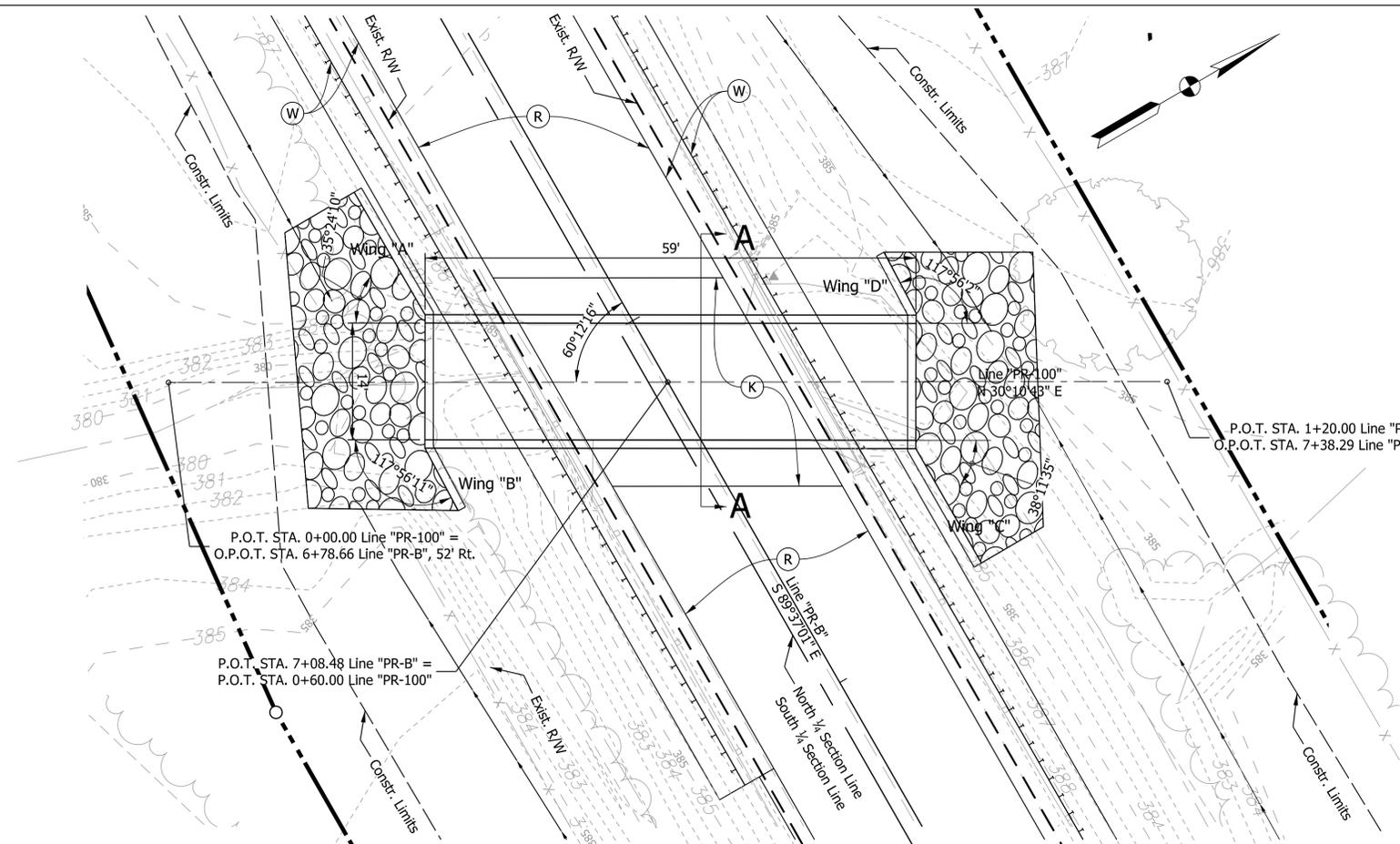
**INDIANA
DEPARTMENT OF TRANSPORTATION**

**PLAN AND PROFILE
LINE "PR-B" (SR 62)**

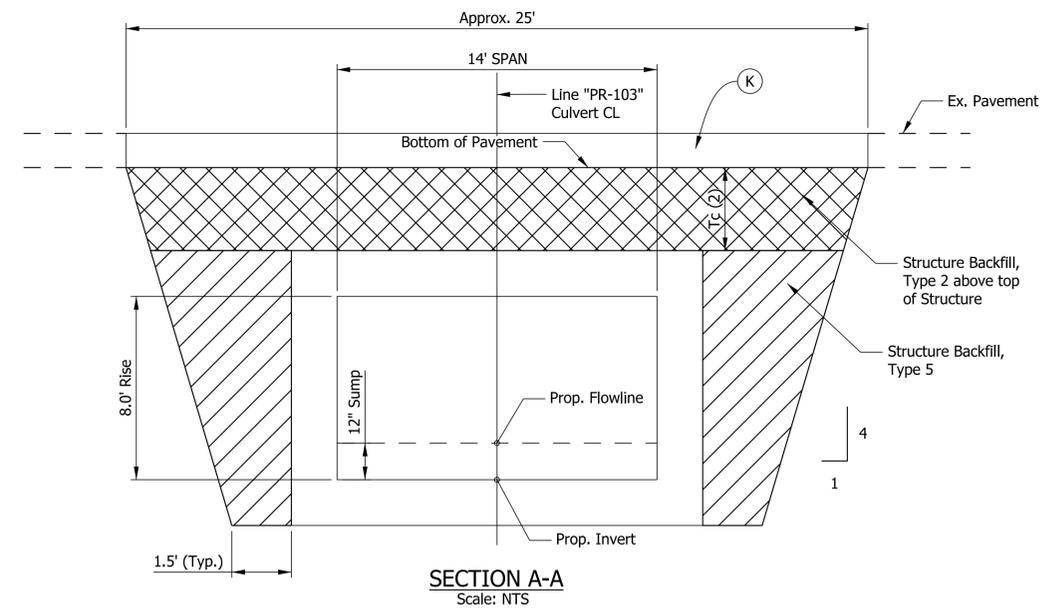
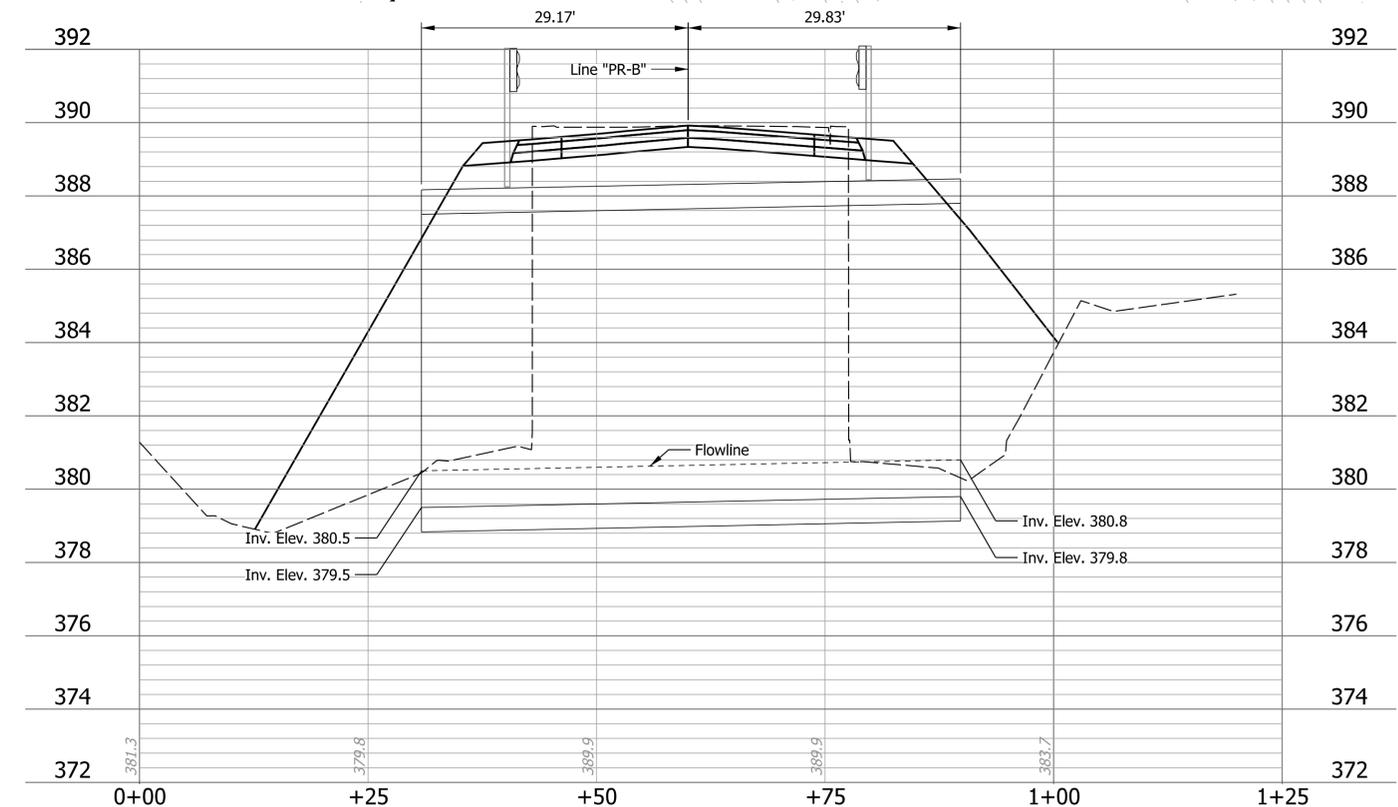
HORIZONTAL SCALE 1" = 20'	ASSET NUMBER CV 062-087-48.79
VERTICAL SCALE 1" = 5'	DESIGNATION 1702071
SURVEY BOOK	SHEETS
CONTRACT R-40551	7 of 37
	PROJECT 1700170

11:32:37 AM
 By: huythk
 Per: Transportation.tbl
 Model: Sheet1
 P:\Infra\2018\180014.07 - SR 62 over PigeonCk 4.79\CAD\Production Drawings\180014.07_Plan and Profile.dgn

WING	TOP ELEV. ①	TOP ELEV. ②	BOT. ELEV. ③	AREA (SF)
"A"	389.00	389.00	377.50	x
"B"	389.00	385.00	377.50	x
"C"	389.30	388.68	377.80	x
"D"	389.30	386.50	377.80	x



WINGWALL LAYOUT DETAIL
Scale: NTS



SECTION A-A
Scale: NTS

- Notes:
- Limits of Pavement removal and new full depth pavement varies by trench depth, approximately 25' for Structure 100.
 - Tc varies 0.9' to 1.1' (assuming 12" Pavement Depth)

REINFORCED CONCRETE BOX STRUCTURE
59'-0" LONG AT 14' SPAN x 8' RISE
24'-0" CLEAR ROADWAY
0.03 miles west of SR 161
WARRICK COUNTY, IN.

- LEGEND**
- (K) FULL DEPTH HMA (See Typical Section)
 - (R) WIDENING WITH HMA, TYPE B (See Typical Section)
 - (W) MILL & OVERLAY (See Typical Section)



RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	DATE
DESIGNED: ARW	DRAWN: KTH	
CHECKED: BWC	CHECKED: BWC	

INDIANA
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN
STRUCTURE 100

SCALE	ASSET NUMBER
1" = 10'	CV 062-087-48.79
VERTICAL SCALE	DESIGNATION
1" = 2'	1702071
SURVEY BOOK	SHEETS
	12 of 37
CONTRACT	PROJECT
R-40551	1700170

Appendix C

Early Coordination

Item	Appendix Page
Early Coordination Example Letter	C1 to C2
Early Coordination Distribution List	C3
Notice of Survey Example Letter	C4
Response – IDEM	C5 to C13
Response – IDEM Wellhead	C14
Response – Indiana Geological Survey	C15 to C17
Response – NRCS	C18
Response – INDOT PI	C19 to C20
Response – IDNR	C21 to C23
Response – USFWS	C24 to C26
USFWS Official Species List (IPaC)	C27 to C32
INDOT Bat Database Email Correspondence	C33 to C34
USFWS Concurrence Verification Letter	C35 to C49
INDOT Concurrence Email for NLAA	C50 to C52
Bridge/Structure Assessment Form	C53 to C54



November 08, 2018

GAI Project No. D180014.07

SAMPLE EC LETTER

**Early Coordination
Designation No. 1702071
SR 62 over UNT Otter Creek
Small Structure Replacement with Bridge
Warrick County, Indiana**

Dear Interested Agency:

The Indiana Department of Transportation (INDOT) and Federal Highway Administration (FHWA) intends to proceed to rehabilitate the structure carrying State Road (SR) 62 over Otter Creek (CV 062-087-48.79) located in Warrick County, Indiana. This letter is part of the early coordination phase of the environmental review process. We are requesting comments from your area of expertise regarding any possible environmental effects associated with this project. Please use the above designation number and description in your reply. We will incorporate your comments into a study of the project's environmental impacts.

This project is located on SR 62, approximately 4.79 miles east of SR 61 in Section 33 of Township 5 South, Range 7 West, as shown on the De Gonia Springs USGS 7.5 Minute Topographic Map. The existing culvert is a 14ft. span by 6.2ft. rise slab top that is approximately 30ft. in length. The existing structure is showing signs of exposed rebar, minor section loss, and efflorescence. As the project is currently proposed, there are three replacement options being considered and they are:

- Option #1: 14' x 8' RCB
- Option #2: 14' x 8' 3-Sided Flat Top
- Option #3: 14' x 8' 3-Sided Arch Top

In order to maintain a low structure elevation and to avoid a grade raise, these options would need to be sumped 18 inches. Class 1 revetment riprap would need to be placed at the structure outlet as a scour countermeasure. No tree removal is expected to occur as part of this project. No right-of-way is expected to be required for this project. The project limits will extend approximately 300ft. along SR 62. No relocations will be required to complete this project as it is proposed.

A Red Flag Investigation is currently being performed to determine items of concern within the project area. Land use in the vicinity is primarily rural residential and agricultural fields. A Wetland Delineation/Determination and Waters of the United States investigation will be conducted in accordance with the 1987 United States Army Corps of Engineers (USACE) *Corps of Engineers Wetlands Delineation Manual* (1987) and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Midwest Region* (Version 2.0, USACE, 2010) and coordinated with the INDOT Ecology & Permits Office. The Range-Wide Programmatic Informal Consultation process using "USFWS's IPaC System for Listed Bat Consultation for INDOT Projects" will be completed. This will be used to evaluate potential impacts to the Indiana Bat and the Northern Long-Eared Bat.

In regard to Section 106, coordination with INDOT Vincennes District and INDOT Cultural Resource Office (CRO) will occur. This project will be evaluated under the Minor Projects Programmatic Agreement (MPPA) between INDOT, FHWA, State Historic Preservation Officer (SHPO), and the Advisory Council on Historic Preservation. If this project is determined to be outside of the MPPA, as the Section 106 process advances, the project area will be surveyed by individuals satisfying the Secretary of the Interior Professional Qualification Standards to determine an area of potential effect (APE), make recommendations on eligibility determinations and assess effects on potential historic resources. Additionally, the project area will be subjected to an archaeological reconnaissance by a qualified archaeologist. Coordination with the SHPO and the identified consulting parties will be ongoing for the duration of the Section 106 process.

Should we not receive your response **within thirty (30) calendar days** from the date of this letter, it will be assumed that your agency or organization feels that there will be no adverse effects incurred as a result of the proposed project. However, should you find that an extension to the response time is necessary; a reasonable extension may be granted upon request.

Project location maps and photo documentation are attached. If you have any questions regarding this matter, please contact me at h.ford@gaiconsultants.com or (317) 436-9142.

Sincerely,
GAI Consultants, Inc.



Harlan Ford
Senior Environmental Specialist

~~Enc.: Project Location Maps, Photo Documentation~~

Project Location Maps and Photo Documentation have been removed and included in Appendix B to avoid duplication.

SR 62 over UNT Otter Creek
Bridge Rehabilitation Project
Des. No. 1702071

Agencies Receiving Early Coordination Packet:

Distributed on November 8, 2018

Mr. Scott Pruitt, Field Supervisor
U.S. Fish and Wildlife Service
Indiana Field Office
620 S. Walker Street
Bloomington, Indiana 47403
Attn: Ms. Robin McWilliams
Robin_McWillimas@fws.gov

Mr. Rick Neilson, State Conservationist
Natural Resources Conservation Service
6013 Lakeside Boulevard
Indianapolis, IN 46278
Rick.neilson@in.usda.gov

Ms. Nancy Hasenmueller, Section Head
Indiana Geological Survey, Environmental Geology
611 North Walnut Grove
Bloomington, IN 47405
IGSenvir@indiana.edu
<https://igs.indiana.edu/eAssessment/>
(Website Submittal)

Mr. Adam French, Development Specialist
IN Dept. of Transportation, Aviation Division
100 North Senate Avenue, Rm N955, IGCN
Indianapolis, IN 46204
afrench2@indot.in.gov

Regional Environmental Coordinator
National Park Service, Midwest Regional Office
601 Riverfront Drive
Omaha, NE 68102

Mr. Antonio Johnson
Planning & Environmental Specialist
Federal Highway Administration, Indiana Division
Federal Office Building, Room 254
575 North Pennsylvania Street,
Indianapolis, IN 46204
Antonio.Johnson@dot.gov

Ms. Christie Stanifer, Environmental Coordinator
IN Dept. of Natural Resources
Division of Water, Fish & Wildlife Unit
402 West Washington Street, Rm W273, IGCS
Indianapolis, IN 46204
environmentalreview@dnr.in.gov

Field Environmental Officer
U.S. Dept. of Housing & Urban Development
Chicago Regional Office, Metcalf Fed. Bldg.
77 West Jackson Boulevard, Room 2401
Chicago, IL 60604

Mr. Rickie Clark, Public Involvement Manager
IN Dept. of Transportation
Office of Public Involvement
100 N. Senate Ave., Room N642
Indianapolis, IN 46204
rclark@indot.in.gov

Mr. Doug Shelton, Chief, Environmental Resources
Department of the Army, Corps of Engineers
Louisville District
P.O. Box 59
Louisville, KY 40201
Attn: CEMP-P-E

IN Dept. of Environmental Management
Office of Planning and Assessment
<http://www.in.gov/idem/5284.htm>
(Website Submittal)

Wellhead Proximity Determinator
<http://www.in.gov/idem/cleanwater/pages/wellhead/>
(Website Investigation)

Mr. Alan Davis, Project Manager
IN Dept. of Transportation, Vincennes District
3650 S US Highway 41
Vincennes, IN 47591
aldavis@indot.in.gov

Mr. Ernie Stoops, Environmental/Design Manager
IN Dept. of Transportation, Vincennes District
3650 S US Highway 41
Vincennes, IN 47591
estoops@indot.in.gov

Warrick County Highway Department
County Administration
107 W. Locust Street
Courthouse, Room 208
Boonville, IN 47601

Mr. Phil Baxter, Warrick County Surveyor
County Administration
107 W. Locust St.
Suite 206 Courthouse
Boonville, IN 47601
surveyor@warrickcounty.gov



Fishers Office
9998 Crosspoint Boulevard
Suite 110
Indianapolis, Indiana 46256

T 317.436.9150
F 317.436.8233

August 13, 2018

GAI Project No. D180014.07

SAMPLE NOS LETTER

Des. No. 1702071
SR 62
Culvert Replacement CV062-087-48.79
Warrick County, Boonville, Indiana

Notice of Entry for Survey **Beginning August 20, 2018**

Dear Property Owner:

Our information indicates that you own or occupy property located near the above proposed transportation project. As representatives of the Indiana Department of Transportation (INDOT), GAI Consultants, Inc., or other consultants, will be conducting field and environmental surveys in the future. It may be necessary for them to enter onto your property to complete this work. This is permitted under Indiana Code § 8-23-7-26. Anyone performing this type of work has been instructed to identify himself or herself to you, if you are available, before they enter your property. If you no longer own this property or it is currently occupied by someone else, please provide us the name of the new owner or occupant and their contact information so we can contact regarding the survey.

Please read the attached notice to inform you of what the "Notice of Entry for Survey or Investigation" means. The field survey(s) may include but is/are not limited to topographic survey including the mapping of locations of features such as trees, buildings, fences and drives, and obtaining ground elevations and geotechnical investigation. The environmental survey(s) may include but is/are not limited to archaeological investigations (which may involve the survey, testing, or excavation of identified archaeological sites), identification and mapping of wetlands and waterways, taking photographs of the area (which may include infrastructure, roads, residential properties, and commercial properties), a historical review of the properties within the vicinity of the proposed project area, evaluation of land use for completion of environmental documentation and various other environmental studies. The information we obtain from such surveys and studies is necessary for the proper planning and design of this project.

It is our sincere desire to cause you as little inconvenience as possible during these surveys. If problems arise, please contact me at b.craig@gaiconsultants.com or 317.570.6800. However, please keep in mind that ***no specific information regarding this project is available at this time.*** Thank you in advance for your cooperation.

Sincerely,

GAI Consultants, Inc.

Brian W. Craig

Digitally signed by Brian W. Craig
DN: cn=Brian W. Craig,
email=B.Craig@gaiconsultants.com
Date: 2018.08.15 09:59:06 -0400

Brian Craig, PE
Project Manager

BC/SW

Enc.: Indiana Department of Transportation Notice of Entry for Survey or Investigation



Indiana Department of Environmental Management

We Protect Hoosiers and Our Environment.

100 North Senate Avenue - Indianapolis, IN 46204
(800) 451-6027 - (317) 232-8603 - www.idem.IN.gov

INDOT
Nickolas Meeks
3650 S. US Highway 41
Vincennes , IN 47591
Date

GAI Consultants Inc.
Harlan Ford
201 N. Illinois Street
Indianapolis , IN 46204

To Engineers and Consultants Proposing Roadway Construction Projects:

RE: The Indiana Department of Transportation (INDOT) and Federal Highway Administration (FHWA) intends to proceed to rehabilitate the structure carrying State Road (SR) 62 over Otter Creek (CV 062-087-48.79) located in Warrick County, Indiana. This project is located on SR 62, approximately 4.79 miles east of SR 61 in Section 33 of Township 5 South, Range 7 West, as shown on the De Gonia Springs USGS 7.5 Minute Topographic Map. The existing culvert is a 14ft. span by 6.2ft. rise slab top that is approximately 30ft. in length. The existing structure is showing signs of exposed rebar, minor section loss, and efflorescence. As the project is currently proposed, there are three replacement options being considered and they are: • Option #1: 14' x 8' RCB • Option #2: 14' x 8' 3-Sided Flat Top • Option #3: 14' x 8' 3-Sided Arch Top In order to maintain a low structure elevation and to avoid a grade raise, these options would need to be sumped 18 inches. Class 1 revetment riprap would need to be placed at the structure outlet as a scour countermeasure. No tree removal is expected to occur as part of this project. No right-of-way is expected to be required for this project. The project limits will extend approximately 300ft. along SR 62. No relocations will be required to complete this project as it is proposed.

This letter from the Indiana Department of Environmental Management (IDEM) serves as a standardized response to enquiries inviting IDEM comments on roadway construction, reconstruction, or other improvement projects within existing roadway corridors when the proposed scope of the project is beneath the threshold requiring a formal National Environmental Policy Act-mandated Environmental Assessment or Environmental Impact Statement. As the letter attempts to address all roadway-related environmental topics of potential concern, it is possible that not every topic addressed in the letter will be applicable to your particular roadway project.

For additional information on specific roadway-related topics of interest, please visit the appropriate Web pages cited below, many of which provide contact information for persons within the various program areas who can answer questions not fully addressed in this letter. Also please be mindful that some environmental requirements may be subject to change and so each person

intending to include a copy of this letter in their project documentation packet is advised to download the most recently revised version of the letter; found at:
<http://www.in.gov/idem/5283.htm> (<http://www.in.gov/idem/5283.htm>).

To ensure that all environmentally-related issues are adequately addressed, IDEM recommends that you read this letter in its entirety, and consider each of the following issues as you move forward with the planning of your proposed roadway construction, reconstruction, or improvement project:

WATER AND BIOTIC QUALITY

1. Section 404 of the Clean Water Act requires that you obtain a permit from the U.S. Army Corps of Engineers (USACE) before discharging dredged or fill materials into any wetlands or other waters, such as rivers, lakes, streams, and ditches. Other activities regulated include the relocation, channelization, widening, or other such alteration of a stream, and the mechanical clearing (use of heavy construction equipment) of wetlands. Thus, as a project owner or sponsor, it is your responsibility to ensure that no wetlands are disturbed without the proper permit. Although you may initially refer to the U.S. Fish and Wildlife Service National Wetland Inventory maps as a means of identifying potential areas of concern, please be mindful that those maps do not depict jurisdictional wetlands regulated by the USACE or the Department of Environmental Management. A valid jurisdictional wetlands determination can only be made by the USACE, using the 1987 Wetland Delineation Manual.

USACE recommends that you have a consultant check to determine whether your project will abut, or lie within, a wetland area. To view a list of consultants that have requested to be included on a list posted by the USACE on their Web site, see USACE Permits and Public Notices (<http://www.lrl.usace.army.mil/orf/default.asp>) (<http://www.lrl.usace.army.mil/orf/default.asp>) and then click on "Information" from the menu on the right-hand side of that page. Their "Consultant List" is the fourth entry down on the "Information" page. Please note that the USACE posts all consultants that request to appear on the list, and that inclusion of any particular consultant on the list does not represent an endorsement of that consultant by the USACE, or by IDEM.

Much of northern Indiana (Newton, Lake, Porter, LaPorte, St. Joseph, Elkhart, LaGrange, Steuben, and Dekalb counties; large portions of Jasper, Starke, Marshall, Noble, Allen, and Adams counties; and lesser portions of Benton, White, Pulaski, Kosciusko, and Wells counties) is served by the USACE District Office in Detroit (313-226-6812). The central and southern portions of the state (large portions of Benton, White, Pulaski, Kosciusko, and Wells counties; smaller portions of Jasper, Starke, Marshall, Noble, Allen, and Adams counties; and all other Indiana counties located in north-central, central, and southern Indiana) are served by the USACE Louisville District Office (502-315-6733).

Additional information on contacting these U.S. Army Corps of Engineers (USACE) District Offices, government agencies with jurisdiction over wetlands, and other water quality issues, can be found at <http://www.in.gov/idem/4396.htm> (<http://www.in.gov/idem/4396.htm>). IDEM recommends that impacts to wetlands and other water resources be avoided to the fullest extent.

2. In the event a Section 404 wetlands permit is required from the USACE, you also must obtain a Section 401 Water Quality Certification from the IDEM Office of Water Quality Wetlands Program. To learn more about the Wetlands Program, visit: <http://www.in.gov/idem/4384.htm> (<http://www.in.gov/idem/4384.htm>).
3. If the USACE determines that a wetland or other water body is isolated and not subject to Clean Water Act regulation, it is still regulated by the state of Indiana . A State Isolated Wetland permit from IDEM's Office of Water Quality (OWQ) is required for any activity that results in the discharge of dredged or fill materials into isolated wetlands. To learn more about isolated wetlands, contact the OWQ Wetlands Program at 317-233-8488.
4. If your project will involve over a 0.5 acre of wetland impact, stream relocation, or other large-scale alterations to water bodies such as the creation of a dam or a water diversion, you should seek additional input from the OWQ Wetlands Program staff. Consult the Web at: <http://www.in.gov/idem/4384.htm> (<http://www.in.gov/idem/4384.htm>) for the appropriate staff contact to further discuss your project.
5. Work within the one-hundred year floodway of a given water body is regulated by the Department of Natural Resources, Division of Water. The Division issues permits for activities regulated under the follow statutes:
 - IC 14-26-2 Lakes Preservation Act 312 IAC 11
 - IC 14-26-5 Lowering of Ten Acre Lakes Act No related code
 - IC 14-28-1 Flood Control Act 310 IAC 6-1
 - IC 14-29-1 Navigable Waterways Act 312 IAC 6
 - IC 14-29-3 Sand and Gravel Permits Act 312 IAC 6
 - IC 14-29-4 Construction of Channels Act No related code

For information on these Indiana (statutory) Code and Indiana Administrative Code citations, see the DNR Web site at: <http://www.in.gov/dnr/water/9451.htm> (<http://www.in.gov/dnr/water/9451.htm>) . Contact the DNR Division of Water at 317-232-4160 for further information.

The physical disturbance of the stream and riparian vegetation, especially large trees overhanging any affected water bodies should be limited to only that which is absolutely necessary to complete the project. The shade provided by the large overhanging trees helps maintain proper stream temperatures and dissolved oxygen for aquatic life.

6. For projects involving construction activity (which includes clearing, grading, excavation and other land disturbing activities) that result in the disturbance of one (1), or more, acres of total land area, contact the Office of Water Quality – Watershed Planning Branch (317/233-1864) regarding the need for of a Rule 5 Storm Water Runoff Permit. Visit the following Web page
 - <http://www.in.gov/idem/4902.htm> (<http://www.in.gov/idem/4902.htm>)

To obtain, and operate under, a Rule 5 permit you will first need to develop a Construction Plan (<http://www.in.gov/idem/4917.htm#constreq> (<http://www.in.gov/idem/4917.htm#constreq>)), and as described in 327 IAC 15-5-6.5

(<http://www.in.gov/legislative/iac/T03270/A00150> [PDF]
(<http://www.in.gov/legislative/iac/T03270/A00150.PDF>), pages 16 through 19). Before you may apply for a Rule 5 Permit, or begin construction, you must submit your Construction Plan to your county Soil and Water Conservation District (SWCD)
(<http://www.in.gov/isda/soil/contacts/map.html>
(<http://www.in.gov/isda/soil/contacts/map.html>)).

Upon receipt of the construction plan, personnel of the SWCD or the Indiana Department of Environmental Management will review the plan to determine if it meets the requirements of 327 IAC 15-5. Plans that are deemed deficient will require re-submittal. If the plan is sufficient you will be notified and instructed to submit the verification to IDEM as part of the Rule 5 Notice of Intent (NOI) submittal. Once construction begins, staff of the SWCD or Indiana Department of Environmental Management will perform inspections of activities at the site for compliance with the regulation.

Please be mindful that approximately 149 Municipal Separate Storm Sewer System (MS4) areas are now being established by various local governmental entities throughout the state as part of the implementation of Phase II federal storm water requirements. All of these MS4 areas will eventually take responsibility for Construction Plan review, inspection, and enforcement. As these MS4 areas obtain program approval from IDEM, they will be added to a list of MS4 areas posted on the IDEM Website at: <http://www.in.gov/idem/4900.htm>
(<http://www.in.gov/idem/4900.htm>).

If your project is located in an IDEM-approved MS4 area, please contact the local MS4 program about meeting their storm water requirements. Once the MS4 approves the plan, the NOI can be submitted to IDEM.

Regardless of the size of your project, or which agency you work with to meet storm water requirements, IDEM recommends that appropriate structures and techniques be utilized both during the construction phase, and after completion of the project, to minimize the impacts associated with storm water runoff. The use of appropriate planning and site development and appropriate storm water quality measures are recommended to prevent soil from leaving the construction site during active land disturbance and for post construction water quality concerns. Information and assistance regarding storm water related to construction activities are available from the Soil and Water Conservation District (SWCD) offices in each county or from IDEM.

7. For projects involving impacts to fish and botanical resources, contact the Department of Natural Resources - Division of Fish and Wildlife (317/232-4080) for additional project input.
8. For projects involving water main construction, water main extensions, and new public water supplies, contact the Office of Water Quality - Drinking Water Branch (317-308-3299) regarding the need for permits.
9. For projects involving effluent discharges to waters of the State of Indiana, contact the Office of Water Quality - Permits Branch (317-233-0468) regarding the need for a National Pollutant Discharge Elimination System (NPDES) permit.

10. For projects involving the construction of wastewater facilities and sewer lines, contact the Office of Water Quality - Permits Branch (317-232-8675) regarding the need for permits.

AIR QUALITY

The above-noted project should be designed to minimize any impact on ambient air quality in, or near, the project area. The project must comply with all federal and state air pollution regulations. Consideration should be given to the following:

1. Regarding open burning, and disposing of organic debris generated by land clearing activities; some types of open burning are allowed (<http://www.in.gov/idem/4148.htm>) (<http://www.in.gov/idem/4148.htm>) under specific conditions. You also can seek an open burning variance from IDEM.

However, IDEM generally recommends that you take vegetative wastes to a registered yard waste composting facility or that the waste be chipped or shredded with composting on site (you must register with IDEM if more than 2,000 pounds is to be composted; contact 317/232-0066). The finished compost can then be used as a mulch or soil amendment. You also may bury any vegetative wastes (such as leaves, twigs, branches, limbs, tree trunks and stumps) onsite, although burying large quantities of such material can lead to subsidence problems, later on.

Reasonable precautions must be taken to minimize fugitive dust emissions from construction and demolition activities. For example, wetting the area with water, constructing wind barriers, or treating dusty areas with chemical stabilizers (such as calcium chloride or several other commercial products). Dirt tracked onto paved roads from unpaved areas should be minimized.

Additionally, if construction or demolition is conducted in a wooded area where blackbirds have roosted or abandoned buildings or building sections in which pigeons or bats have roosted for 3-5 years precautionary measures should be taken to avoid an outbreak of histoplasmosis. This disease is caused by the fungus *Histoplasma capsulatum*, which stems from bird or bat droppings that have accumulated in one area for 3-5 years. The spores from this fungus become airborne when the area is disturbed and can cause infections over an entire community downwind of the site. The area should be wetted down prior to cleanup or demolition of the project site. For more detailed information on histoplasmosis prevention and control, please contact the Acute Disease Control Division of the Indiana State Department of Health at (317) 233-7272.

2. The U.S. EPA and the Surgeon General recommend that people not have long-term exposure to radon at levels above 4 pCi/L. (For a county-by-county map of predicted radon levels in Indiana, visit: <http://www.in.gov/idem/4145.htm> (<http://www.in.gov/idem/4145.htm>).

The U.S. EPA further recommends that all homes (and apartments within three stories of ground level) be tested for radon. If in-home radon levels are determined to be 4 pCi/L, or higher, EPA recommends a follow-up test. If the second test confirms that radon levels are 4

pCi/L, or higher, EPA recommends the installation of radon-reduction measures. (For a list of qualified radon testers and radon mitigation (or reduction) specialists visit: http://www.in.gov/isdh/regsvcs/radhealth/pdfs/radon_testers_mitigators_list.pdf (http://www.in.gov/isdh/regsvcs/radhealth/pdfs/radon_testers_mitigators_list.pdf.) It also is recommended that radon reduction measures be built into all new homes, particularly in areas like Indiana that have moderate to high predicted radon levels.

To learn more about radon, radon risks, and ways to reduce exposure visit: <http://www.in.gov/isdh/regsvcs/radhealth/radon.htm> (<http://www.in.gov/isdh/regsvcs/radhealth/radon.htm>), <http://www.in.gov/idem/4145.htm> (<http://www.in.gov/idem/4145.htm>), or <http://www.epa.gov/radon/index.html> (<http://www.epa.gov/radon/index.html>).

3. With respect to asbestos removal: all facilities slated for renovation or demolition (except residential buildings that have (4) four or fewer dwelling units and which will not be used for commercial purposes) must be inspected by an Indiana-licensed asbestos inspector prior to the commencement of any renovation or demolition activities. If regulated asbestos-containing material (RACM) that may become airborne is found, any subsequent demolition, renovation, or asbestos removal activities must be performed in accordance with the proper notification and emission control requirements.

If no asbestos is found where a renovation activity will occur, or if the renovation involves removal of less than 260 linear feet of RACM off of pipes, less than 160 square feet of RACM off of other facility components, or less than 35 cubic feet of RACM off of all facility components, the owner or operator of the project does not need to notify IDEM before beginning the renovation activity.

For questions on asbestos demolition and renovation activities, you can also call IDEM's Lead/Asbestos section at 1-888-574-8150.

However, in all cases where a demolition activity will occur (even if no asbestos is found), the owner or operator must still notify IDEM 10 working days prior to the demolition, using the form found at <http://www.in.gov/icpr/webfile/formsdiv/44593.pdf> (<http://www.in.gov/icpr/webfile/formsdiv/44593.pdf>).

Anyone submitting a renovation/demolition notification form will be billed a notification fee based upon the amount of friable asbestos containing material to be removed or demolished. Projects that involve the removal of more than 2,600 linear feet of friable asbestos containing materials on pipes, or 1,600 square feet or 400 cubic feet of friable asbestos containing material on other facility components, will be billed a fee of \$150 per project; projects below these amounts will be billed a fee of \$50 per project. All notification remitters will be billed on a quarterly basis.

For more information about IDEM policy regarding asbestos removal and disposal, visit: <http://www.in.gov/idem/4983.htm> (<http://www.in.gov/idem/4983.htm>).

4. With respect to lead-based paint removal: IDEM encourages all efforts to minimize human exposure to lead-based paint chips and dust. IDEM is particularly concerned that young

children exposed to lead can suffer from learning disabilities. Although lead-based paint abatement efforts are not mandatory, any abatement that is conducted within housing built before January 1, 1978, or a child-occupied facility is required to comply with all lead-based paint work practice standards, licensing and notification requirements. For more information about lead-based paint removal visit: <http://www.in.gov/isdh/19131.htm> (<http://www.in.gov/isdh/19131.htm>).

5. Ensure that asphalt paving plants are permitted and operate properly. The use of cutback asphalt, or asphalt emulsion containing more than seven percent (7%) oil distillate, is prohibited during the months April through October. See 326 IAC 8-5-2, Asphalt Paving Rule (<http://www.ai.org/legislative/iac/T03260/A00080.PDF> (<http://www.ai.org/legislative/iac/T03260/A00080.PDF>)).
6. If your project involves the construction of a new source of air emissions or the modification of an existing source of air emissions or air pollution control equipment, it will need to be reviewed by the IDEM Office of Air Quality (OAQ). A registration or permit may be required under 326 IAC 2 (View at: www.ai.org/legislative/iac/t03260/a00020.pdf (<http://www.ai.org/legislative/iac/t03260/a00020.pdf>)). New sources that use or emit hazardous air pollutants may be subject to Section 112 of the Clean Air Act and corresponding state air regulations governing hazardous air pollutants.
7. For more information on air permits visit: <http://www.in.gov/idem/4223.htm> (<http://www.in.gov/idem/4223.htm>), or to initiate the IDEM air permitting process, please contact the Office of Air Quality Permit Reviewer of the Day at (317) 233-0178 or OAMPROD atdem.state.in.us.

LAND QUALITY

In order to maintain compliance with all applicable laws regarding contamination and/or proper waste disposal, IDEM recommends that:

1. If the site is found to contain any areas used to dispose of solid or hazardous waste, you need to contact the Office of Land Quality (OLQ) at 317-308-3103.
2. All solid wastes generated by the project, or removed from the project site, need to be taken to a properly permitted solid waste processing or disposal facility. For more information, visit <http://www.in.gov/idem/4998.htm> (<http://www.in.gov/idem/4998.htm>).
3. If any contaminated soils are discovered during this project, they may be subject to disposal as hazardous waste. Please contact the OLQ at 317-308-3103 to obtain information on proper disposal procedures.
4. If PCBs are found at this site, please contact the Industrial Waste Section of OLQ at 317-308-3103 for information regarding management of any PCB wastes from this site.
5. If there are any asbestos disposal issues related to this site, please contact the Industrial Waste Section of OLQ at 317-308-3103 for information regarding the management of asbestos wastes (Asbestos removal is addressed above, under Air Quality).

6. If the project involves the installation or removal of an underground storage tank, or involves contamination from an underground storage tank, you must contact the IDEM Underground Storage Tank program at 317/308-3039. See: <http://www.in.gov/idem/4999.htm> (<http://www.in.gov/idem/4999.htm>).

FINAL REMARKS

Should you need to obtain any environmental permits in association with this proposed project, please be mindful that IC 13-15-8 requires that you notify all adjoining property owners and/or occupants within ten days your submittal of each permit application. However, if you are seeking multiple permits, you can still meet the notification requirement with a single notice if all required permit applications are submitted with the same ten day period.

Should the scope of the proposed project be expanded to the extent that a National Environmental Policy Act Environmental Assessment (EA) or Environmental Impact Statement (EIS) is required, IDEM will actively participate in any early interagency coordination review of the project.

Meanwhile, please note that this letter does not constitute a permit, license, endorsement or any other form of approval on the part of the Indiana Department of Environmental Management regarding any project for which a copy of this letter is used. Also note that is it the responsibility of the project engineer or consultant using this letter to ensure that the most current draft of this document, which is located at <http://www.in.gov/idem/5284.htm> (<http://www.in.gov/idem/5284.htm>), is used.

Signature(s) of the Applicant

I acknowledge that the following proposed roadway project will be financed in part, or in whole, by public monies.

Project Description

The Indiana Department of Transportation (INDOT) and Federal Highway Administration (FHWA) intends to proceed to rehabilitate the structure carrying State Road (SR) 62 over Otter Creek (CV 062-087-48.79) located in Warrick County, Indiana. This project is located on SR 62, approximately 4.79 miles east of SR 61 in Section 33 of Township 5 South, Range 7 West, as shown on the De Gonia Springs USGS 7.5 Minute Topographic Map. The existing culvert is a 14ft. span by 6.2ft. rise slab top that is approximately 30ft. in length. The existing structure is showing signs of exposed rebar, minor section loss, and efflorescence. As the project is currently proposed, there are three replacement options being considered and they are: • Option #1: 14' x 8' RCB • Option #2: 14' x 8' 3-Sided Flat Top • Option #3: 14' x 8' 3-Sided Arch Top In order to maintain a low structure elevation and to avoid a grade raise, these options would need to be sumped 18 inches. Class 1 revetment riprap would need to be placed at the structure outlet as a scour countermeasure. No

tree removal is expected to occur as part of this project. No right-of-way is expected to be required for this project. The project limits will extend approximately 300ft. along SR 62. No relocations will be required to complete this project as it is proposed.

With my signature, I do hereby affirm that I have read the letter from the Indiana Department of Environment that appears directly above. In addition, I understand that in order to complete that project in which I am interested, with a minimum of impact to the environment, I must consider all the issues addressed in the aforementioned letter, and further, that I must obtain any required permits.

Date: 11/27/2018

Signature of the INDOT
Project Engineer or Other Responsible Agent *Nickolas Meeks*

Nickolas Meeks

Date: 11/26/18

Signature of the
For Hire Consultant *Harlan Ford*

Harlan Ford



Indiana Department of Environmental Management

We Protect Hoosiers and Our Environment.

100 N. Senate Avenue • Indianapolis, IN 46204

(800) 451-6027 • (317) 232-8603 • www.idem.IN.gov

Eric J. Holcomb
Governor

Bruno Pigott
Commissioner

September 10, 2019

66-33
GAI Consultants
Attention: Harlan Ford
201 North Illinois Street, Suite 1700
Indianapolis, Indiana 46204

Dear Harlan Ford,

RE: Wellhead Protection Area
Proximity Determination
Des No 1702071
Replacement of Culvert No. 062-
087-48.79 that carries SR 62 over
UNT to Otter Creek in
Warrick County

Upon review of the above referenced project site, it has been determined that the proposed project area **is not located within** a Wellhead Protection Area. The information is accurate to the best of our knowledge; however, there are in some cases a few factors that could impact the accuracy of this determination. Some Wellhead Protection Area Delineations have not been submitted, and many have not been approved by this office. In these cases we use a 3,000 foot fixed radius buffer to make the proximity determination. To find the status of a Public Water Supply System's (PWSS's) Wellhead Protection Area Delineation please visit our tracking database at <http://www.in.gov/idem/cleanwater/2456.htm> and scroll to the bottom of the page.

Note: the Drinking Water Branch has launched a new self service feature which allows one to determine wellhead proximity without submitting the application form. Use the following instructions:

1. Go to <http://idemmaps.idem.in.gov/whpa2/>
2. Use the search tool located in the upper left hand corner of the application to zoom to your site of interest by way of city, county, or address; or use the mouse to click on the site of interest displayed on the map.
3. Once the site of interest has been located and selected, use the print tool to create a .pdf of a wellhead protection area proximity determination response.

In the future please consider using this self service feature if it suits your needs.

If you have any additional questions please feel free to contact me at the address above or at (317) 233-9158 and aturnbow@idem.in.gov.

Sincerely,

Alisha Turnbow,
Environmental Manager, Ground Water
Section, Drinking Water Branch, Office of
Water Quality



Please Reduce, Reuse, Recycle

Organization and Project Information

Project ID: 1702071
Des. ID: 1702071
Project Title: Sr 62 over UNT to Otter Creek
Name of Organization: GAI Consultants Inc.
Requested by: Harlan Ford

Environmental Assessment Report

1. Geological Hazards:
 - High liquefaction potential
 - 1% Annual Chance Flood Hazard
2. Mineral Resources:
 - Bedrock Resource: High Potential
 - Sand and Gravel Resource: None documented in the area
3. Active or abandoned mineral resources extraction sites:
 - None documented in the area

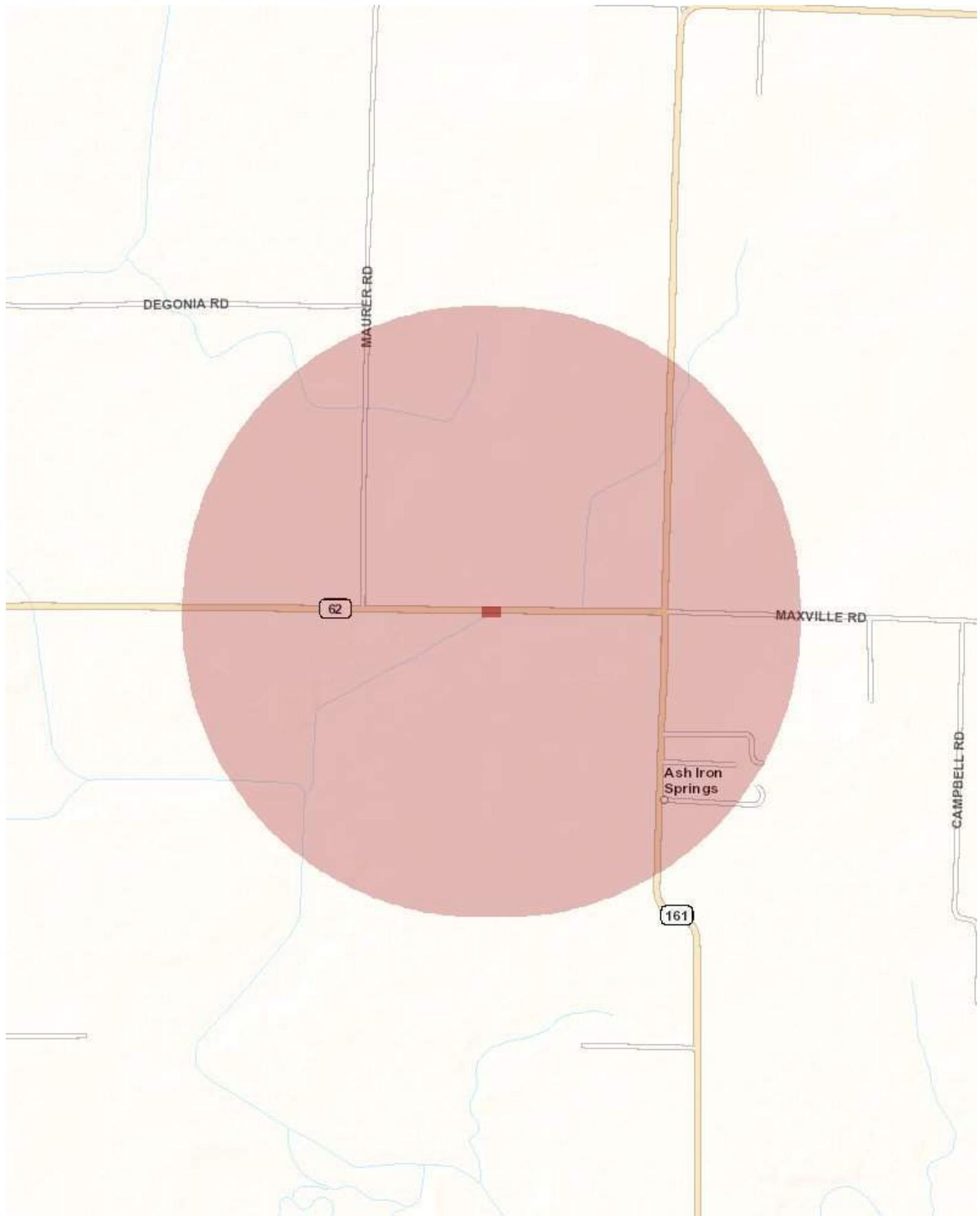
*All map layers from Indiana Map (maps.indiana.edu)

DISCLAIMER:

This document was compiled by Indiana University, Indiana Geological Survey, using data believed to be accurate; however, a degree of error is inherent in all data. This product is distributed "AS-IS" without warranties of any kind, either expressed or implied, including but not limited to warranties of suitability to a particular purpose or use. No attempt has been made in either the design or production of these data and document to define the limits or jurisdiction of any federal, state, or local government. The data used to assemble this document are intended for use only at the published scale of the source data or smaller (see the metadata links below) and are for reference purposes only. They are not to be construed as a legal document or survey instrument. A detailed on-the-ground survey and historical analysis of a single site may differ from these data and this document.

This information was furnished by Indiana Geological Survey
Address: 611 N. Walnut Grove Avenue, Bloomington, IN 47405-2208
Email: IGSEnvir@indiana.edu
Phone: 812 855-7428

Date: November 08, 2018



Metadata:

- https://maps.indiana.edu/metadata/Geology/Seismic_Earthquake_Liquefaction_Potential.html
- https://maps.indiana.edu/metadata/Hydrology/Floodplains_FIRM.html
- https://maps.indiana.edu/metadata/Geology/Bedrock_Geology.html

November 14, 2018

Harlan Ford
GAI Consultants
201 North Illinois Street, Suite 1700
Indianapolis, Indiana 46204

Dear Mr. Ford:

The proposed project to replace small structure on State Road 62 over an unnamed tributary to Otter Creek in Warrick County, Indiana, (Des No. 1702071) as referred in your letter received on November 8, 2018 will not cause a conversion of prime farmland.

If you need additional information, please contact Daniel Phillips at 317-295-5871.

Sincerely,

**JERRY
RAYNOR**
JERRY RAYNOR
State Conservationist

Digitally signed by JERRY
RAYNOR
Date: 2018.11.16 17:53:58
-05'00'



From: Wright, Mary <MWRIGHT@indot.IN.gov>
Sent: Thursday, November 15, 2018 12:24 PM
To: Harlan Ford
Subject: RE: Early Coordination Letter for Des No. 1702071

Early Coordination and Creating a Public Involvement Plan (PIP)

We have received your early coordination notification packet for the above referenced project(s). Our office prefers to be notified at the early coordination stage in order to encourage early and ongoing public involvement aside from the specific legal requirements as outlined in our Public Involvement Manual <http://www.in.gov/indot/2366.htm>. Seeking the public's understanding of transportation improvement projects early in the project development stage can allow the opportunity for the public to express their concerns, comments, and to seek buy-in. Early coordination is the perfect opportunity to examine the proposed project and its impacts to the community along with the many ways and or tools to inform the public of the improvements and seek engagement. A good public involvement plan, or PIP, should consider the type, scope, impacts, and the level of public awareness that should, or could, be implemented. In other words, although there are cases where no public involvement is legally required, sometimes it is simply the right thing to do in order to keep the public informed.

The public involvement office is always available to provide support and resources to bolster any public involvement activities you may wish to implement or discuss. Please feel free to contact our office anytime should you have any questions or concerns. Thank you for notifying our office about your proposed project. We trust you will not only analyze the appropriate public involvement required, but also consider the opportunity to do go above and beyond those requirements in creating a good PIP.

Rickie Clark, Manager
100 North Senate Avenue, Room N642
Indianapolis, IN 46204
Phone: 317-232-6601
Email: rclark@indot.in.gov

Mary Wright, Hearing Examiner
Phone: 317-234-0796
Email: mwright@indot.in.gov

From: Harlan Ford [<mailto:H.Ford@gaiconsultants.com>]
Sent: Thursday, November 08, 2018 3:05 PM
To: Clark, Rickie <RCLARK@indot.IN.gov>
Cc: Wright, Mary <MWRIGHT@indot.IN.gov>
Subject: Early Coordination Letter for Des No. 1702071

Mr. Clark,

I am contacting you today on behalf of INDOT to inform you of a upcoming project proposed by INDOT. Attached you will find an ECL packet with details concerning the project. If you have any questions or concerns with this project, please don't hesitate to contact me.

Thank you for your time,

Harlan M. Ford
Environmental Specialist

GAI Consultants, 201 N. Illinois Street, Suite 1700, Indianapolis, IN 46204
T 317.570.6800 **D** 317.436.9142 **M** 423.458.5979

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State of Indiana
DEPARTMENT OF NATURAL RESOURCES
Division of Fish and Wildlife
Early Coordination/Environmental Assessment

DNR #: ER-21024

Request Received: November 8, 2018

Requestor: GAI Consultants, Inc.
Harlan Ford
201 North Illinois Street
Suite 1700
Indianapolis, IN 46204

Project: SR 62 small structure (CV# 062-087-48.79) replacement over UNT Otter Creek, about 4.79 miles east of SR 61; Des #1702071

County/Site info: Warrick

The Indiana Department of Natural Resources has reviewed the above referenced project per your request. Our agency offers the following comments for your information and in accordance with the National Environmental Policy Act of 1969.

If our agency has regulatory jurisdiction over the project, the recommendations contained in this letter may become requirements of any permit issued. If we do not have permitting authority, all recommendations are voluntary.

Regulatory Assessment: Formal approval by the Department of Natural Resources under the regulatory programs administered by the Division of Water is not required for this project.

Natural Heritage Database: The Natural Heritage Program's data have been checked. To date, no plant or animal species listed as state or federally threatened, endangered, or rare have been reported to occur in the project vicinity.

Fish & Wildlife Comments: Avoid and minimize impacts to fish, wildlife, and botanical resources to the greatest extent possible, and compensate for impacts. The following are recommendations that address potential impacts identified in the proposed project area:

1) Crossing Structure:

Option #1 will result in the most impacts to fish, wildlife, and botanical resources as it is a box culvert. We recommend option #2 or #3 as they will result in fewer impacts.

For purposes of maintaining fish and wildlife passage through a crossing structure, the Environmental Unit recommends bridges rather than culverts and bottomless culverts rather than box or pipe culverts. Wide culverts are better than narrow culverts, and culverts with shorter through lengths are better than culverts with longer through lengths. If box or pipe culverts are used, the bottoms should be buried a minimum of 6" (or 20% of the culvert height/pipe diameter, whichever is greater up to a maximum of 2') below the stream bed elevation to allow a natural streambed to form within or under the crossing structure. Crossings should: span the entire channel width (a minimum of 1.2 times the OHWM width); maintain the natural stream substrate within the structure; have a minimum openness ratio (height x width / length) of 0.25; and have stream depth, channel width, and water velocities during low-flow conditions that are approximate to those in the natural stream channel.

The new, replacement, or rehabbed structure, and any bank stabilization under the structure, should not create conditions that are less favorable for wildlife passage under the structure compared to the current conditions. Any riprap placed at the culvert's outlet should match the outlet/invert elevation at the upstream edge of the riprap apron. Smaller stone and fines should be mixed in to match the existing stream substrate particle distribution and provide impermeability of the riprap apron/substrate so the flow

State of Indiana
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Division of Fish and Wildlife
Early Coordination/Environmental Assessment

does not percolate through the voids below the riprap apron's surface. The slope of the riprap should be no steeper than 20:1 from the lip of the culvert pipe to the streambed. Riprap on the inlet side should have a slope no steeper than 5:1. Natural streambed material should be backfilled within the structure where possible as it can provide refuge for species using the culvert. Natural bed materials such as large cobble and boulders should be placed within the structure (anchored if necessary) to provide flow diversity and roughness/energy dissipation.

Sump depth for a pipe or box culvert should be increased/adjusted to match the structure's design life according to the background rate of bed degradation/downcutting so that the culvert does not become perched long before the culvert requires replacement. Culvert width and gradient should be appropriate for the site conditions so that flows do not scour out material from the culvert. Stream simulation design should be applied with any crossing structure. Additional information is available in Publication No. FHWA-HIF-11-008, Federal Highway Administration, Culvert Design for Aquatic Organism Passage, October 2010 (<http://www.fhwa.dot.gov/engineering/hydraulics/pubs/11008/hif11008.pdf>).

If riprap is placed within the structure to protect the footings, it should not extend from the edge of the structure more than 3 feet on each side.

2) Bank Stabilization:

Minimize the use of riprap in the channel and use alternative erosion protection materials whenever possible. Bioengineered bank stabilization methods should be used on the bank slopes (see <http://directives.sc.egov.usda.gov/OpenNonWebContent.aspx?content=17553.wba>). Riprap can be used as stream bank toe protection and placed from the toe of the bank up to the ordinary high water mark (ohwm). From the ohwm to the top of the bank, erosion control blankets or turf reinforcement mats should be used. Erosion control blankets, turf reinforcement mats and other similar materials should be seeded with native plants to allow a natural, vegetated stream bank to develop.

3) Riparian Habitat:

We recommend a mitigation plan be developed for any unavoidable habitat impacts that will occur. The DNR's Floodway Habitat Mitigation guidelines (and plant lists) can be found online at: <http://www.in.gov/legislative/iac/20140806-IR-312140295NRA.xml.pdf>.

Impacts to non-wetland forest of one (1) acre or more should be mitigated at a minimum 2:1 ratio. If less than one acre of non-wetland forest is removed in a rural setting, replacement should be at a 1:1 ratio based on area. Impacts to non-wetland forest under one (1) acre in an urban setting should be mitigated by planting five trees, at least 2 inches in diameter-at-breast height (dbh), for each tree which is removed that is 10" dbh or greater (5:1 mitigation based on the number of large trees). Impacts to wetland habitat should be mitigated at the appropriate ratio according to the 1991 INDOT/IDNR/USFWS Memorandum of Understanding.

The mitigation site should be located in the floodway, downstream of the one (1) square mile drainage area of that stream (or another stream within the 8-digit HUC, preferably as close to the impact site as possible) and adjacent to existing forested riparian habitat.

The additional measures listed below should be implemented to avoid, minimize, or compensate for impacts to fish, wildlife, and botanical resources:

1. Revegetate all bare and disturbed areas in the floodway with a mixture of native grasses, sedges, wildflowers, and also native hardwood trees and shrubs as soon as possible upon completion. Do not use any varieties of Tall Fescue or other non-native

State of Indiana
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Division of Fish and Wildlife
Early Coordination/Environmental Assessment

plants (e.g. crown-vetch).

2. Minimize and contain within the project limits inchannel disturbance and the clearing of trees and brush.
3. Do not work in the waterway from April 1 through June 30 without the prior written approval of the Division of Fish and Wildlife.
4. Do not cut any trees suitable for Indiana bat or Northern Long-eared bat roosting (greater than 3 inches dbh, living or dead, with loose hanging bark, or with cracks, crevices, or cavities) from April 1 through September 30.
5. Do not excavate in the low flow area except for the placement of piers, foundations, and riprap, or removal of the old structure.
6. Do not construct any temporary runarounds, causeways, cofferdams, pump around or stream diversion systems.
7. Use minimum average 6 inch graded riprap stone extended below the normal water level to provide habitat for aquatic organisms in the voids.
8. Plant native hardwood trees along the top of the bank and right-of-way to replace the vegetation destroyed during construction.
9. Post "Do Not Mow or Spray" signs along the right-of-way.
10. Appropriately designed measures for controlling erosion and sediment must be implemented to prevent sediment from entering the stream or leaving the construction site; maintain these measures until construction is complete and all disturbed areas are stabilized.
11. Seed and protect all disturbed streambanks and slopes not protected by other methods that are 3:1 or steeper with erosion control blankets that are heavy-duty, biodegradable, and net free or that use loose-woven / Leno-woven netting to minimize the entrapment and snaring of small-bodied wildlife such as snakes and turtles (follow manufacturer's recommendations for selection and installation); seed and apply mulch on all other disturbed areas.

Contact Staff:

Christie L. Stanifer, Environ. Coordinator, Fish & Wildlife

Our agency appreciates this opportunity to be of service. Please contact the above staff member at (317) 232-4080 if we can be of further assistance.



Christie L. Stanifer
Environ. Coordinator
Division of Fish and Wildlife

Date: December 7, 2018

From: McWilliams, Robin <robin_mcwilliams@fws.gov>
Sent: Wednesday, November 14, 2018 10:25 AM
To: Harlan Ford
Subject: Re: [EXTERNAL] Early Coordination Letter for Des No. 1702071
Attachments: image001.png

Follow Up Flag: Follow up
Flag Status: Flagged

Dear Harlan,

This responds to your recent letter, requesting our comments on the aforementioned project.

These comments have been prepared under the authority of the Fish and Wildlife Coordination Act (16 U.S.C. 661 et. seq.) and are consistent with the intent of the National Environmental Policy Act of 1969, the Endangered Species Act of 1973, and the U. S. Fish and Wildlife Service's Mitigation Policy.

The project is within the range of the Indiana bat (*Myotis sodalis*) and northern long-eared bat (*Myotis septentrionalis*) and should follow the new Indiana bat/northern long-eared bat programmatic consultation process, if applicable (*i.e.* a federal transportation nexus is established). We will review that information once it is received.

Based on a review of the information you provided, the U.S. Fish and Wildlife Service has no objections to the project as currently proposed. However, should new information arise pertaining to project plans or a revised species list be published, it will be necessary for the Federal agency to reinitiate consultation. Standard recommendations are provided below.

We appreciate the opportunity to comment at this early stage of project planning. If project plans change such that fish and wildlife habitat may be affected, please re-coordinate with our office as soon as possible. If you have any questions about our recommendations, please call (812) 334-4261 x. 207.

Sincerely,
Robin McWilliams Munson

Standard Recommendations:

1. Do not clear trees or understory vegetation outside the construction zone boundaries. (**This restriction is not related to the "tree clearing" restriction for potential Indiana Bat habitat.**)
2. Restrict below low-water work in streams to placement of culverts, piers, pilings and/or footings, shaping of the spill slopes around the bridge abutments, and placement of riprap.

Culverts should span the active stream channel, should be either embedded or a 3-sided or open-arch culvert, and be installed where practicable on an essentially flat slope. When an open-bottomed culvert or arch is used in a stream, which has a good natural bottom substrate, such as gravel, cobbles and boulders, the existing substrate should be left undisturbed beneath the culvert to provide natural habitat for the aquatic community.

3. Restrict channel work and vegetation clearing to the minimum necessary for installation of the stream crossing structure.
4. Minimize the extent of hard armor (riprap) in bank stabilization by using bioengineering techniques whenever possible. If rip rap is utilized for bank stabilization, extend it below low-water elevation to provide aquatic habitat.
5. Implement temporary erosion and sediment control methods within areas of disturbed soil. All disturbed soil areas upon project completion will be vegetated following INDOT's standard specifications.
6. Avoid all work within the inundated part of the stream channel (in perennial streams and larger intermittent streams) during the fish spawning season (April 1 through June 30), except for work within sealed structures such as caissons or cofferdams that were installed prior to the spawning season. No equipment shall be operated below Ordinary High Water Mark during this time unless the machinery is within the caissons or on the cofferdams.
7. Evaluate wildlife crossings under bridge/culverts projects in appropriate situations. Suitable crossings include flat areas below bridge abutments with suitable ground cover, high water shelves in culverts, amphibian tunnels and diversion fencing.

Robin McWilliams Munson

U.S. Fish and Wildlife Service
620 South Walker Street
Bloomington, Indiana 46403
812-334-4261 x. 207 Fax: 812-334-4273

Monday, Tuesday - 7:30a-3:00p
Wednesday, Thursday - telework 8:30a-3:00p

On Thu, Nov 8, 2018 at 3:08 PM Harlan Ford <H.Ford@gaiconsultants.com> wrote:

Robin,

I am contacting you today on behalf of INDOT to inform you of a upcoming project proposed by INDOT. Attached you will find an ECL packet with details concerning the project. If you have any questions or concerns with this project, please don't hesitate to contact me.

Thank you for your time,

Harlan M. Ford
Environmental Specialist

GAI Consultants, 201 N. Illinois Street, Suite 1700, Indianapolis, IN 46204

T 317.570.6800 **D** 317.436.9142 **M** 423.458.5979

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United States Department of the Interior



FISH AND WILDLIFE SERVICE

Indiana Ecological Services Field Office

620 South Walker Street

Bloomington, IN 47403-2121

Phone: (812) 334-4261 Fax: (812) 334-4273

<http://www.fws.gov/midwest/Endangered/section7/s7process/step1.html>

In Reply Refer To:

December 19, 2019

Consultation Code: 03E12000-2020-SLI-0446

Event Code: 03E12000-2020-E-02110

Project Name: Des. 1702071: SR-62 over UNT to Otter Creek - Small Structure Replacement

Subject: Updated list of threatened and endangered species that may occur in your proposed project location, and/or may be affected by your proposed project

To Whom It May Concern:

The attached species list identifies any federally threatened, endangered, proposed and candidate species that may occur within the boundary of your proposed project or may be affected by your proposed project. The list also includes designated critical habitat if present within your proposed project area or affected by your project. This list is provided to you as the initial step of the consultation process required under section 7(c) of the Endangered Species Act, also referred to as Section 7 Consultation.

Section 7 of the Endangered Species Act of 1973 requires that actions authorized, funded, or carried out by Federal agencies not jeopardize federally threatened or endangered species or adversely modify designated critical habitat. To fulfill this mandate, Federal agencies (or their designated non-federal representative) must consult with the Service if they determine their project “may affect” listed species or critical habitat.

Under 50 CFR 402.12(e) (the regulations that implement Section 7 of the Endangered Species Act) the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally. You may verify the list by visiting the ECOS-IPaC website <http://ecos.fws.gov/ipac/> at regular intervals during project planning and implementation and completing the same process you used to receive the attached list. As an alternative, you may contact this Ecological Services Field Office for updates.

Please use the species list provided and visit the U.S. Fish and Wildlife Service's Region 3 Section 7 Technical Assistance website at - <http://www.fws.gov/midwest/endangered/section7/s7process/index.html>. This website contains step-by-step instructions which will help you

determine if your project will have an adverse effect on listed species and will help lead you through the Section 7 process.

For all **wind energy projects** and **projects that include installing towers that use guy wires or are over 200 feet in height**, please contact this field office directly for assistance, even if no federally listed plants, animals or critical habitat are present within your proposed project or may be affected by your proposed project.

Although no longer protected under the Endangered Species Act, be aware that bald eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 *et seq.*) and Migratory Bird Treaty Act (16 U.S.C. 703 *et seq.*), as are golden eagles. Projects affecting these species may require measures to avoid harming eagles or may require a permit. If your project is near an eagle nest or winter roost area, see our Eagle Permits website at <http://www.fws.gov/midwest/midwestbird/EaglePermits/index.html> to help you determine if you can avoid impacting eagles or if a permit may be necessary.

We appreciate your concern for threatened and endangered species. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Indiana Ecological Services Field Office

620 South Walker Street

Bloomington, IN 47403-2121

(812) 334-4261

Project Summary

Consultation Code: 03E12000-2020-SLI-0446

Event Code: 03E12000-2020-E-02110

Project Name: Des. 1702071: SR-62 over UNT to Otter Creek - Small Structure Replacement

Project Type: TRANSPORTATION

Project Description: The project is located on SR-62 over UNT to Otter Creek, approximately 4.79 miles east of SR-61 in Skelton Township, Warrick County, Indiana. Specifically, this project is in Section 33, Township 5 South, Range 7 West, within the De Gonia U.S. Geological Survey (USGS) 7.6 Minute Topographic Map. The scope of this project includes the replacement of the of the existing culvert (CV 062-087-48.79/ Asset Code: 93007552) with a new reinforced concrete box (RCB) culvert (14ft. span by 8 ft. rise).The existing culvert is a 14 ft. span by 6.2 ft. rise concrete slab top. The need for this project stems from the deteriorating condition of the existing culvert, which exhibits signs of delamination and spalling exposing reinforcement and severe section loss in the superstructure, in addition to cracking and efflorescence in the widening beams. The substructure exhibited map cracking and minor efflorescence at the east abutment and southeast wingwall and moderate spalling. The channel displayed minor widespread erosion. The purpose of this project is to address the deteriorating condition of the culvert carrying SR-62 over UNT to Otter Creek. Suitable summer habitat exists within the project area; however, tree trimming/clearing will be kept to the bare minimum to accommodate the new structure and regrade and realign the ditches. Approximately 0.16 acre of tree trimming/clearing is anticipated with the dominant species being cottonwood (*Populus deltoids*), hackberry (*Celtis occidentalis*), ash (*Fraxinus americana*), and box elder (*Acer negundo*). A review of the USFWS database for bat hibernacula within the 0.5 mile search radius of the project area was completed by INDOT Vincennes District on October 9, 2018. Their review did not indicate the presence of endangered bat species in or within the 0.5 mile search radius of the project area. On October 11, 2018 qualified personnel from GAI Consultants Inc. inspected the culvert for the presence of bats. The inspection did not detect any bats or signs of bats at this structure. No permanent lighting will be installed or replaced as part of this project; however, the use of temporary lighting may be needed. Existing right-of-way (ROW) ends approximately 30 ft. north from the roadway centerline and approximately 30-35 ft. south from the roadway centerline. Approximately 0.53 acre of permanent right-of-way will need to be

acquired to complete this project. Construction for this project is expected to begin in Spring of 2022.

Project Location:

Approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/place/38.03979906720883N87.1919189284191W>



Counties: Warrick, IN

Endangered Species Act Species

There is a total of 2 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. Note that 1 of these species should be considered only under certain conditions.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

-
1. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

Mammals

NAME	STATUS
Indiana Bat <i>Myotis sodalis</i> There is final critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/5949 Species survey guidelines: https://ecos.fws.gov/ipac/guideline/survey/population/1/office/31440.pdf	Endangered
Northern Long-eared Bat <i>Myotis septentrionalis</i> No critical habitat has been designated for this species. This species only needs to be considered under the following conditions: <ul style="list-style-type: none"> ▪ Incidental take of the NLEB is not prohibited here. Federal agencies may consult using the 4(d) rule streamlined process. Transportation projects may consult using the programmatic process. See www.fws.gov/midwest/endangered/mammals/nleb/index.html Species profile: https://ecos.fws.gov/ecp/species/9045	Threatened

Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

From: Wright, Kristy <KWright@indot.IN.gov>
Sent: Tuesday, October 9, 2018 3:21 PM
To: Harlan Ford; Meeks, Nickolas W
Cc: Falls, Ryan G
Subject: RE: USFWS Bat Database Check for Des No. 1702071

October 9, 2018

TO: GAI – Mr. Ford
RE: USFWS Confidential database review SR 62 at RP 48+79 Warrick DES 1702071

The search was negative for endangered bat species within 0.5 mile of the project area. Please use the following statement in your RFI report:

“A review of the USFWS database did not indicate the presence of endangered bat species in or within the 0.5 mile search radius of the project area.
The range-wide programmatic consultation for the Indiana bat and the Northern Long-eared bat will be completed according to “Using the USFWS IPaC System for Listed Bat Consultation, for INDOT Projects, dated October 25, 2018”.

Thank you. kw

Kristy Wright
Capital Program Management- Environmental Manager II
3650 South U.S. Highway 41
Vincennes, IN 47591
Office: (812) 895-7335
Email: kwright@indot.IN.gov



From: Harlan Ford [<mailto:H.Ford@gaiconsultants.com>]
Sent: Monday, October 08, 2018 9:56 AM
To: Stoops, Ernie <ESTOOPS@indot.IN.gov>
Cc: Falls, Ryan G <RFalls@indot.IN.gov>; Wright, Kristy <KWright@indot.IN.gov>
Subject: USFWS Bat Database Check for Des No. 1702071

****** This is an EXTERNAL email. Exercise caution. DO NOT open attachments or click links from unknown senders or unexpected email. ******

Mr. Stoops,

Per your request, attached you will find a site location topographic map and an aerial map for the project. Can you check the USFWS Database for bats within 0.5 mile of the project area and let me know the results? I have provided some additional information on the project in the below table for your reference. Please let me know if you have any questions or need anything else.

Des No.	Road	Feature Crossed	County	Long.	Lat.	Bats: Y or N
1702071	SR 62	UNT, Otter Creek	Warrick	-87.191953	38.039814	

Thanks for your time,

Harlan M. Ford
Environmental Specialist

GAI Consultants, 201 N. Illinois Street, Suite 1700, Indianapolis, IN 46204
T 317.570.6800 **D** 317.436.9142 **M** 423.458.5979

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United States Department of the Interior



FISH AND WILDLIFE SERVICE

Indiana Ecological Services Field Office

620 South Walker Street

Bloomington, IN 47403-2121

Phone: (812) 334-4261 Fax: (812) 334-4273

<http://www.fws.gov/midwest/Endangered/section7/s7process/step1.html>

In Reply Refer To:

December 20, 2019

Consultation Code: 03E12000-2020-I-0446

Event Code: 03E12000-2020-E-02130

Project Name: Des. 1702071: SR-62 over UNT to Otter Creek - Small Structure Replacement

Subject: Concurrence verification letter for the 'Des. 1702071: SR-62 over UNT to Otter Creek - Small Structure Replacement' project under the revised February 5, 2018, FHWA, FRA, FTA Programmatic Biological Opinion for Transportation Projects within the Range of the Indiana Bat and Northern Long-eared Bat.

To whom it may concern:

The U.S. Fish and Wildlife Service (Service) has received your request to verify that the **Des. 1702071: SR-62 over UNT to Otter Creek - Small Structure Replacement** (Proposed Action) may rely on the concurrence provided in the February 5, 2018, FHWA, FRA, FTA Programmatic Biological Opinion for Transportation Projects within the Range of the Indiana Bat and Northern Long-eared Bat (PBO) to satisfy requirements under Section 7(a)(2) of the Endangered Species Act of 1973 (ESA) (87 Stat. 884, as amended; 16 U.S.C 1531 *et seq.*).

Based on the information you provided (Project Description shown below), you have determined that the Proposed Action is within the scope and adheres to the criteria of the PBO, including the adoption of applicable avoidance and minimization measures, and may affect, but is not likely to adversely affect (NLAA) the endangered Indiana bat (*Myotis sodalis*) and/or the threatened Northern long-eared bat (*Myotis septentrionalis*).

The Service has 14 calendar days to notify the lead Federal action agency or designated non-federal representative if we determine that the Proposed Action does not meet the criteria for a NLAA determination under the PBO. If we do not notify the lead Federal action agency or designated non-federal representative within that timeframe, you may proceed with the Proposed Action under the terms of the NLAA concurrence provided in the PBO. This verification period allows Service Field Offices to apply local knowledge to implementation of the PBO, as we may identify a small subset of actions having impacts that were unanticipated. In such instances, Service Field Offices may request additional information that is necessary to verify inclusion of the proposed action under the PBO.

For Proposed Actions that include bridge/structure removal, replacement, and/or maintenance activities: If your initial bridge/structure assessments failed to detect Indiana bats, but you later detect bats during construction, please submit the Post Assessment Discovery of Bats at Bridge/Structure Form (User Guide Appendix E) to this Service Office. In these instances, potential incidental take of Indiana bats may be exempted provided that the take is reported to the Service.

If the Proposed Action is modified, or new information reveals that it may affect the Indiana bat and/or Northern long-eared bat in a manner or to an extent not considered in the PBO, further review to conclude the requirements of ESA Section 7(a)(2) may be required. If the Proposed Action may affect any other federally-listed or proposed species, and/or any designated critical habitat, additional consultation between the lead Federal action agency and this Service Office is required. If the proposed action has the potential to take bald or golden eagles, additional coordination with the Service under the Bald and Golden Eagle Protection Act may also be required. In either of these circumstances, please contact this Service Office.

Project Description

The following project name and description was collected in IPaC as part of the endangered species review process.

Name

Des. 1702071: SR-62 over UNT to Otter Creek - Small Structure Replacement

Description

The project is located on SR-62 over UNT to Otter Creek, approximately 4.79 miles east of SR-61 in Skelton Township, Warrick County, Indiana. Specifically, this project is in Section 33, Township 5 South, Range 7 West, within the De Gonia U.S. Geological Survey (USGS) 7.6 Minute Topographic Map. The scope of this project includes the replacement of the of the existing culvert (CV 062-087-48.79/ Asset Code: 93007552) with a new reinforced concrete box (RCB) culvert (14ft. span by 8 ft. rise).The existing culvert is a 14 ft. span by 6.2 ft. rise concrete slab top. The need for this project stems from the deteriorating condition of the existing culvert, which exhibits signs of delamination and spalling exposing reinforcement and severe section loss in the superstructure, in addition to cracking and efflorescence in the widening beams. The substructure exhibited map cracking and minor efflorescence at the east abutment and southeast wingwall and moderate spalling. The channel displayed minor widespread erosion. The purpose of this project is to address the deteriorating condition of the culvert carrying SR-62 over UNT to Otter Creek. Suitable summer habitat exists within the project area; however, tree trimming/clearing will be kept to the bare minimum to accommodate the new structure and regrade and realign the ditches. Approximately 0.16 acre of tree trimming/clearing is anticipated with the dominant species being cottonwood (*Populus deltoids*), hackberry (*Celtis occidentalis*), ash (*Fraxinus americana*), and box elder (*Acer negundo*). A review of the USFWS database for bat hibernacula within the 0.5 mile search radius of the project area was completed by INDOT Vincennes District on October 9, 2018. Their review did not indicate the presence of endangered bat species in or within the 0.5 mile search radius of the project area. On October 11, 2018 qualified personnel from GAI Consultants Inc. inspected the culvert for the presence of bats. The inspection did not detect any bats or signs of bats at this structure. No permanent lighting will be installed or replaced as part of this project; however, the use of temporary lighting may be needed. Existing right-of-way (ROW) ends approximately 30 ft. north from the roadway centerline and approximately 30-35 ft. south from the roadway centerline. Approximately 0.53 acre of permanent right-of-way will need to be acquired to complete this project. Construction for this project is expected to begin in Spring of 2022.

Determination Key Result

Based on your answers provided, this project(s) may affect, but is not likely to adversely affect the endangered Indiana bat and/or the threatened Northern long-eared bat, therefore, consultation with the U.S. Fish and Wildlife Service pursuant to Section 7(a)(2) of the Endangered Species Act of 1973 (ESA) (87 Stat. 884, as amended 16 U.S.C. 1531 *et seq.*) is required. However, also based on your answers provided, this project may rely on the concurrence provided in the revised February 5, 2018, FHWA, FRA, FTA Programmatic Biological Opinion for Transportation Projects within the Range of the Indiana Bat and Northern Long-eared Bat.

Qualification Interview

1. Is the project within the range of the Indiana bat^[1]?

[1] See [Indiana bat species profile](#)

Automatically answered

Yes

2. Is the project within the range of the Northern long-eared bat^[1]?

[1] See [Northern long-eared bat species profile](#)

Automatically answered

Yes

3. Which Federal Agency is the lead for the action?

A) *Federal Highway Administration (FHWA)*

4. Are *all* project activities limited to non-construction^[1] activities only? (examples of non-construction activities include: bridge/abandoned structure assessments, surveys, planning and technical studies, property inspections, and property sales)

[1] Construction refers to activities involving ground disturbance, percussive noise, and/or lighting.

No

5. Does the project include *any* activities that are **greater than** 300 feet from existing road/rail surfaces^[1]?

[1] Road surface is defined as the actively used [e.g. motorized vehicles] driving surface and shoulders [may be pavement, gravel, etc.] and rail surface is defined as the edge of the actively used rail ballast.

No

6. Does the project include *any* activities **within** 0.5 miles of a known Indiana bat and/or NLEB hibernaculum^[1]?

[1] For the purpose of this consultation, a hibernaculum is a site, most often a cave or mine, where bats hibernate during the winter (see suitable habitat), but could also include bridges and structures if bats are found to be hibernating there during the winter.

No

7. Is the project located **within** a karst area?

No

8. Is there *any* suitable^[1] summer habitat for Indiana Bat or NLEB **within** the project action area^[2]? (includes any trees suitable for maternity, roosting, foraging, or travelling habitat)

[1] See the Service's [summer survey guidance](#) for our current definitions of suitable habitat.

[2] The action area is defined as all areas to be affected directly or indirectly by the Federal action and not merely the immediate area involved in the action (50 CFR Section 402.02). Further clarification is provided by the [national consultation FAQs](#).

Yes

9. Will the project remove *any* suitable summer habitat^[1] and/or remove/trim any existing trees **within** suitable summer habitat?

[1] See the Service's [summer survey guidance](#) for our current definitions of suitable habitat.

Yes

10. Will the project clear more than 20 acres of suitable habitat per 5-mile section of road/rail?

No

11. Have presence/probable absence (P/A) summer surveys^{[1][2]} been conducted^{[3][4]} **within** the suitable habitat located within your project action area?

[1] See the Service's [summer survey guidance](#) for our current definitions of suitable habitat.

[2] Presence/probable absence summer surveys conducted within the fall swarming/spring emergence home range of a documented Indiana bat hibernaculum (contact local Service Field Office for appropriate distance from hibernacula) that result in a negative finding requires additional consultation with the local Service Field Office to determine if clearing of forested habitat is appropriate and/or if seasonal clearing restrictions are needed to avoid and minimize potential adverse effects on fall swarming and spring emerging Indiana bats.

[3] For projects within the range of either the Indiana bat or NLEB in which suitable habitat is present, and no bat surveys have been conducted, the transportation agency will assume presence of the appropriate species. This assumption of presence should be based upon the presence of suitable habitat and the capability of bats to occupy it because of their mobility.

[4] Negative presence/probable absence survey results obtained using the [summer survey guidance](#) are valid for a minimum of two years from the completion of the survey unless new information (e.g., other nearby surveys) suggest otherwise.

No

12. Does the project include activities **within documented Indiana bat habitat**^{[1][2]}?

[1] Documented roosting or foraging habitat – for the purposes of this consultation, we are considering documented habitat as that where Indiana bats and/or NLEB have actually been captured and tracked using (1) radio telemetry to roosts; (2) radio telemetry triangulation/triangulation to estimate foraging areas; or (3) foraging areas with repeated use documented using acoustics. Documented roosting habitat is also considered as suitable summer habitat within 0.25 miles of documented roosts.)

[2] For the purposes of this key, we are considering documented corridors as that where Indiana bats and/or NLEB have actually been captured and tracked to using (1) radio telemetry; or (2) treed corridors located directly between documented roosting and foraging habitat.

No

13. Will the removal or trimming of habitat or trees occur **within** suitable but **undocumented Indiana bat** roosting/foraging habitat or travel corridors?

Yes

14. What time of year will the removal or trimming of habitat or trees **within** suitable but **undocumented Indiana bat** roosting/foraging habitat or travel corridors occur^[1]?

[1] Coordinate with the local Service Field Office for appropriate dates.

B) During the inactive season

15. Does the project include activities **within documented NLEB habitat**^{[1][2]}?

[1] Documented roosting or foraging habitat – for the purposes of this consultation, we are considering documented habitat as that where Indiana bats and/or NLEB have actually been captured and tracked using (1) radio telemetry to roosts; (2) radio telemetry biangulation/triangulation to estimate foraging areas; or (3) foraging areas with repeated use documented using acoustics. Documented roosting habitat is also considered as suitable summer habitat within 0.25 miles of documented roosts.)

[2] For the purposes of this key, we are considering documented corridors as that where Indiana bats and/or NLEB have actually been captured and tracked to using (1) radio telemetry; or (2) treed corridors located directly between documented roosting and foraging habitat.

No

16. Will the removal or trimming of habitat or trees occur **within** suitable but **undocumented NLEB** roosting/foraging habitat or travel corridors?

Yes

17. What time of year will the removal or trimming of habitat or trees **within** suitable but **undocumented NLEB** roosting/foraging habitat or travel corridors occur?

B) During the inactive season

18. Will *any* tree trimming or removal occur **within** 100 feet of existing road/rail surfaces?

Yes

19. Will the tree removal alter *any* **documented** Indiana bat or NLEB roosts and/or alter any surrounding summer habitat **within** 0.25 mile of a documented roost?

No

20. Will *any* tree trimming or removal occur **between** 100-300 feet of existing road/rail surfaces?

No

21. Are *all* trees that are being removed clearly demarcated?

Yes

22. Will the removal of habitat or the removal/trimming of trees include installing new or replacing existing **permanent** lighting?

No

23. Does the project include wetland or stream protection activities associated with compensatory wetland mitigation?

No

24. Does the project include slash pile burning?

No

25. Does the project include *any* bridge removal, replacement, and/or maintenance activities (e.g., any bridge repair, retrofit, maintenance, and/or rehabilitation work)?

Yes

26. Is there *any* suitable habitat^[1] for Indiana bat or NLEB **within** 1,000 feet of the bridge? (includes any trees suitable for maternity, roosting, foraging, or travelling habitat)

[1] See the Service's current [summer survey guidance](#) for our current definitions of suitable habitat.

Yes

27. Has a bridge assessment^[1] been conducted **within** the last 24 months^[2] to determine if the bridge is being used by bats?

[1] See [User Guide Appendix D](#) for bridge/structure assessment guidance

[2] Assessments must be completed no more than 2 years prior to conducting any work below the deck surface on all bridges that meet the physical characteristics described in the Programmatic Consultation, regardless of whether assessments have been conducted in the past. Due to the transitory nature of bat use, a negative result in one year does not guarantee that bats will not use that bridge/structure in subsequent years.

Yes

SUBMITTED DOCUMENTS

- *USFWS_BridgeStructureAssessmentForm_1702071 V2.pdf* <https://ecos.fws.gov/ipac/project/7C6ZDHS62RBWNIBNUZDLQ7HKXU/projectDocuments/19551489>

28. Did the bridge assessment detect *any* signs of Indiana bats and/or NLEBs roosting in/under the bridge (bats, guano, etc.)^[1]?

[1] If bridge assessment detects signs of *any* species of bats, coordination with the local FWS office is needed to identify potential threatened or endangered bat species. Additional studies may be undertaken to try to identify which bat species may be utilizing the bridge prior to allowing *any* work to proceed.

Note: There is a small chance bridge assessments for bat occupancy do not detect bats. Should a small number of bats be observed roosting on a bridge just prior to or during construction, such that take is likely to occur or does occur in the form of harassment, injury or death, the PBO requires the action agency to report the take. Report all unanticipated take within 2 working days of the incident to the USFWS. Construction activities may continue without delay provided the take is reported to the USFWS and is limited to 5 bats per project.

No

29. Will the bridge removal, replacement, and/or maintenance activities include installing new or replacing existing **permanent** lighting?

No

30. Does the project include the removal, replacement, and/or maintenance of *any* structure other than a bridge? (e.g., rest areas, offices, sheds, outbuildings, barns, parking garages, etc.)

No

31. Will the project involve the use of **temporary** lighting *during* the active season?

Yes

32. Is there *any* suitable habitat **within** 1,000 feet of the location(s) where **temporary** lighting will be used?

Yes

33. Will the project install new or replace existing **permanent** lighting?

No

34. Does the project include percussives or other activities (**not including tree removal/trimming or bridge/structure work**) that will increase noise levels above existing traffic/background levels?

Yes

35. Will the activities that use percussives (**not including tree removal/trimming or bridge/structure work**) and/or increase noise levels above existing traffic/background levels be conducted *during* the active season^[1]?

[1] Coordinate with the local Service Field Office for appropriate dates.

Yes

36. Will *any* activities that use percussives (**not including tree removal/trimming or bridge/structure work**) and/or increase noise levels above existing traffic/background levels be conducted *during* the inactive season^[1]?

[1] Coordinate with the local Service Field Office for appropriate dates.

Yes

37. Are *all* project activities that are **not associated with** habitat removal, tree removal/trimming, bridge and/or structure activities, temporary or permanent lighting, or use of percussives, limited to actions that DO NOT cause any additional stressors to the bat species?

Examples: lining roadways, unlighted signage , rail road crossing signals, signal lighting, and minor road repair such as asphalt fill of potholes, etc.

Yes

38. Will the project raise the road profile **above the tree canopy**?

No

39. Are the project activities that use percussives (not including tree removal/trimming or bridge/structure work) consistent with a Not Likely to Adversely Affect determination in this key?

Automatically answered

Yes, because the activities are within 300 feet of the existing road/rail surface, greater than 0.5 miles from a hibernacula, and conducted during the active season within undocumented habitat.

40. Are the project activities that use percussives (not including tree removal/trimming or bridge/structure work) and/or increase noise levels above existing traffic/background levels consistent with a No Effect determination in this key?

Automatically answered

Yes, because the activities are within 300 feet of the existing road/rail surface, greater than 0.5 miles from a hibernacula, and conducted during the inactive season

41. Is the habitat removal portion of this project consistent with a Not Likely to Adversely Affect determination in this key?

Automatically answered

Yes, because the tree removal/trimming that occurs outside of the Indiana bat's active season occurs greater than 0.5 miles from the nearest hibernaculum, is less than 100 feet from the existing road/rail surface, includes clear demarcation of the trees that are to be removed, and does not alter documented roosts and/or surrounding summer habitat within 0.25 miles of a documented roost.

42. Is the habitat removal portion of this project consistent with a Not Likely to Adversely Affect determination in this key?

Automatically answered

Yes, because the tree removal/trimming that occurs outside of the NLEB's active season occurs greater than 0.5 miles from the nearest hibernaculum, is less than 100 feet from the existing road/rail surface, includes clear demarcation of the trees that are to be removed, and does not alter documented roosts and/or surrounding summer habitat within 0.25 miles of a documented roost.

43. Is the bridge removal, replacement, or maintenance activities portion of this project consistent with a No Effect determination in this key?

Automatically answered

Yes, because the bridge has been assessed using the criteria documented in the BA and no signs of bats were detected

44. **General AMM 1**

Will the project ensure *all* operators, employees, and contractors working in areas of known or presumed bat habitat are aware of *all* FHWA/FRA/FTA (Transportation Agencies) environmental commitments, including all applicable Avoidance and Minimization Measures?

Yes

45. Tree Removal AMM 1

Can *all* phases/aspects of the project (e.g., temporary work areas, alignments) be modified, to the extent practicable, to avoid tree removal^[1] in excess of what is required to implement the project safely?

Note: Tree Removal AMM 1 is a minimization measure, the full implementation of which may not always be practicable. Projects may still be NLAA as long as Tree Removal AMMs 2, 3, and 4 are implemented and LAA as long as Tree Removal AMMs 3, 5, 6, and 7 are implemented.

[1] The word “trees” as used in the AMMs refers to trees that are suitable habitat for each species within their range. See the USFWS’ current summer survey guidance for our latest definitions of suitable habitat.

Yes

46. Tree Removal AMM 3

Can tree removal be limited to that specified in project plans and ensure that contractors understand clearing limits and how they are marked in the field (e.g., install bright colored flagging/fencing prior to any tree clearing to ensure contractors stay within clearing limits)?

Yes

47. Tree Removal AMM 4

Can the project avoid cutting down/removal of *all* (1) **documented**^[1] Indiana bat or NLEB roosts^[2] (that are still suitable for roosting), (2) trees **within** 0.25 miles of roosts, and (3) documented foraging habitat any time of year?

[1] The word documented means habitat where bats have actually been captured and/or tracked.

[2] Documented roosting or foraging habitat – for the purposes of this consultation, we are considering documented habitat as that where Indiana bats and/or NLEB have actually been captured and tracked using (1) radio telemetry to roosts; (2) radio telemetry biangulation/triangulation to estimate foraging areas; or (3) foraging areas with repeated use documented using acoustics. Documented roosting habitat is also considered as suitable summer habitat within 0.25 miles of documented roosts.)

Yes

48. Lighting AMM 1

Will *all* **temporary** lighting be directed away from suitable habitat during the active season?

Yes

Project Questionnaire

1. Have you made a No Effect determination for *all* other species indicated on the FWS IPaC generated species list?

N/A

2. Have you made a May Affect determination for *any* other species on the FWS IPaC generated species list?

N/A

3. How many acres^[1] of trees are proposed for removal between 0-100 feet of the existing road/rail surface?

[1] If described as number of trees, multiply by 0.09 to convert to acreage and enter that number.

0.16

4. Please describe the proposed bridge work:

Scope of work for this project includes the replacement of the existing culvert (CV 062-087-48.79). In addition, the project will include the regrading and realignment of the ditches in all four quadrants and the widening of the roadway to accommodate 4 ft. paved shoulders.

5. Please state the timing of all proposed bridge work:

Spring of 2022

6. Please enter the date of the bridge assessment:

October 11, 2018

Avoidance And Minimization Measures (AMMs)

This determination key result includes the commitment to implement the following Avoidance and Minimization Measures (AMMs):

GENERAL AMM 1

Ensure all operators, employees, and contractors working in areas of known or presumed bat habitat are aware of all FHWA/FRA/FTA (Transportation Agencies) environmental commitments, including all applicable AMMs.

LIGHTING AMM 1

Direct temporary lighting away from suitable habitat during the active season.

TREE REMOVAL AMM 1

Modify all phases/aspects of the project (e.g., temporary work areas, alignments) to avoid tree removal.

TREE REMOVAL AMM 2

Apply time of year restrictions for tree removal when bats are not likely to be present, or limit tree removal to 10 or fewer trees per project at any time of year within 100 feet of existing road/rail surface and **outside of documented** roosting/foraging habitat or travel corridors; visual emergence survey must be conducted with no bats observed.

TREE REMOVAL AMM 3

Ensure tree removal is limited to that specified in project plans and ensure that contractors understand clearing limits and how they are marked in the field (e.g., install bright colored flagging/fencing prior to any tree clearing to ensure contractors stay within clearing limits).

TREE REMOVAL AMM 4

Do not remove **documented** Indiana bat or NLEB roosts that are still suitable for roosting, or trees within 0.25 miles of roosts, or **documented** foraging habitat any time of year.

Determination Key Description: FHWA, FRA, FTA Programmatic Consultation For Transportation Projects Affecting NLEB Or Indiana Bat

This key was last updated in IPaC on December 02, 2019. Keys are subject to periodic revision.

This decision key is intended for projects/activities funded or authorized by the Federal Highway Administration (FHWA), Federal Railroad Administration (FRA), and/or Federal Transit Administration (FTA), which may require consultation with the U.S. Fish and Wildlife Service (Service) under Section 7 of the Endangered Species Act (ESA) for the endangered **Indiana bat** (*Myotis sodalis*) and the threatened **Northern long-eared bat** (NLEB) (*Myotis septentrionalis*).

This decision key should only be used to verify project applicability with the Service's [February 5, 2018, FHWA, FRA, FTA Programmatic Biological Opinion for Transportation Projects](#). The programmatic biological opinion covers limited transportation activities that may affect either bat species, and addresses situations that are both likely and not likely to adversely affect either bat species. This decision key will assist in identifying the effect of a specific project/activity and applicability of the programmatic consultation. The programmatic biological opinion is not intended to cover all types of transportation actions. Activities outside the scope of the programmatic biological opinion, or that may affect ESA-listed species other than the Indiana bat or NLEB, or any designated critical habitat, may require additional ESA Section 7 consultation.

Raquel Walker

From: Falls, Ryan G <RFalls@indot.IN.gov>
Sent: Friday, December 20, 2019 9:11 AM
To: Harlan Ford
Cc: Wright, Kristy; Raquel Walker
Subject: RE: IPaC Review Request for Des No. 1702071 - nlaa

EXTERNAL E-MAIL MESSAGE

The document's finding of May Effect, NLAA-With AMMs for DES 1702071 has been deemed sufficient. It has been verified and submitted to USFWS for their 14 working calendar day review period. The NEPA document submittal may not occur until this review period has ended. The Official Species List, Consistency Letter, and Concurrence Verification Letter are all now immediately available for your use. It is suggested that these documents be downloaded at this time. This concludes the IPaC phase of coordination with the Vincennes environmental office.

Ryan Falls

Capital Program Management-Senior Environmental Manager Supervisor

Indiana Department of Transportation
3650 South US Highway 41
Vincennes, IN 47591

Office: 812-895-7326

Cell: 812-582-1387

Fax: 812-895-7474

Cisco: 14605

Email: rfalls@indot.IN.gov



From: Harlan Ford [mailto:H.Ford@gaiconsultants.com]
Sent: Friday, December 20, 2019 7:02 AM
To: Falls, Ryan G <RFalls@indot.IN.gov>
Cc: Wright, Kristy <KWright@indot.IN.gov>; Raquel Walker <R.Walker@gaiconsultants.com>
Subject: RE: IPaC Review Request for Des No. 1702071 & 1st Comments

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Mr. Falls,

Thank you for your comments! I have revised the determination key based on the revisions you requested. The revised IPaC determination key is ready for your review. The IPaC record locator ID is: **168-19506815**

Thank you!

Harlan M. Ford

D 317.436.9142 **M** 423.458.5979

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From: Falls, Ryan G <RFalls@indot.IN.gov>
Sent: Thursday, December 19, 2019 2:33 PM
To: Harlan Ford <H.Ford@gaiconsultants.com>
Cc: Wright, Kristy <KWright@indot.IN.gov>; Raquel Walker <R.Walker@gaiconsultants.com>
Subject: RE: IPaC Review Request for Des No. 1702071 & 1st Comments

EXTERNAL E-MAIL MESSAGE

Harlan Ford,

Per "Using USFWS's IPaC System for Listed Bat Consultation for INDOT Projects"
(<https://www.in.gov/indot/files/Using%20USFWS%20IPaC%20-%20Final.pdf>) available on the INDOT Policy webpage
(<https://www.in.gov/indot/2523.htm>) Step 3:

-Describe any temporary or permanent lighting. (if none please note for each) (must have checked with the project manager/project designer if 'No')

Your project questionnaire's tree clearing acreage does not match your description's acreage. Correct as appropriate.

Please note that IPaC will auto-generate questions based on how you answer them. Corrections will cause new or delete questions and new numbering that may differ from above. Also, the Official Species List and Consistency Letter will need to be regenerated as changes to the title and/or description do not automatically update. Once these corrections have been made, please alert me, and I can approve this project.

Thank you,

Ryan Falls

Capital Program Management-Senior Environmental Manager Supervisor

Indiana Department of Transportation

3650 South US Highway 41

Vincennes, IN 47591

Office: 812-895-7326

Cell: 812-582-1387

Fax: 812-895-7474

Cisco: 14605

Email: rfalls@indot.IN.gov



From: Harlan Ford [<mailto:H.Ford@gaiconsultants.com>]
Sent: Thursday, December 19, 2019 2:02 PM
To: Falls, Ryan G <RFalls@indot.IN.gov>
Cc: Wright, Kristy <KWright@indot.IN.gov>; Raquel Walker <R.Walker@gaiconsultants.com>
Subject: IPaC Review Request for Des No. 1702071

**** This is an EXTERNAL email. Exercise caution. DO NOT open attachments or click links from unknown senders or unexpected email. ****

Mr. Falls,

IPaC gave me a NLAA finding which I believe to be appropriate for this project. When you get the chance, can I please get you to review this determination key and let me know if you concur with the NLAA finding? You have been added as a project member in IPaC and the IPaC Record locator ID is: **168-19506815**.

Please let me know if you have any questions or need any additional information.

Thank you for your time,

Harlan M. Ford

Environmental Specialist

GAI Consultants, 201 N. Illinois Street, Suite 1700, Indianapolis, IN 46204

T 317.570.6800 **D** 317.436.9142 **M** 423.458.5979

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APPENDIX D: Bridge/Structure Assessment Form

This form will be completed and submitted to the District Environmental Manager by the Contractor prior to conducting any work below the deck surface either from the underside; from activities above that bore down to the underside; from activities that could impact expansion joints; from deck removal on bridges; or from structure demolition for bridges/structures within 1000 feet of suitable bat habitat.

DOT Project #	Water Body	Date/Time of Inspection	Within 1,000ft of suitable bat habitat (circle one)
Des. 1702071	UNT to Otter Creek	October 11, 2018	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

Route	County	Federal Structure ID
SR-62	Warrick County	CV 062-087-48.79 (93007552)

If the bridge/structure is 1,000 feet or more from suitable bat habitat (e.g., an urban or agricultural area without suitable foraging habitat or corridors linking the bridge to suitable foraging habitat), check box and STOP HERE. No assessment required. Please submit to the U.S. Fish and Wildlife Service.

Areas Inspected (Check all that apply)

Bridges		Culverts/Other Structures		Summary Info (circle all that apply)			
All vertical crevices sealed at the top and 0.5-1.25" wide & ≥4" deep		Crevices, rough surfaces or imperfections in concrete	X	Human disturbance or traffic under bridge/in culvert or at the structure	High	Low	<input checked="" type="checkbox"/> None
All crevices >12" deep & not sealed		Spaces between walls, ceiling joists	X	Possible corridors for netting	<input checked="" type="checkbox"/> None/poor	Marginal	Excellent
All guardrails							
All expansion joints							
Spaces between concrete end walls and the bridge deck							

Last Revised May 31, 2017

Vertical surfaces on concrete Ibeams							
---	--	--	--	--	--	--	--

Evidence of Bats (Circle all that apply) Presence of one or more indicators is sufficient evidence that bats may be using the structure.

None

Visual (e.g. survey, thermal, emergent etc.)

- Live __ number seen
- Dead __ number seen

Photo documentation Y/N

Audible

Guano

Odor Y/N

Photo documentation Y/N

Staining definitively from bats

Photo documentation Y/N

Assessment Conducted By: _____ Harlan Ford _____ Signature(s):  _____
District Environmental Use Only: Date Received by District Environmental Manager: _____

DOT Bat Assessment Form Instructions

1. Assessments must be completed no more than 2 years prior to conducting any work below the deck surface on all bridges, regardless of whether assessments have been conducted in the past.
2. Any bridge/structure suspected of providing habitat for any species of bat will be removed from work schedules until such time that the DOT has coordinated with the USFWS. Additional studies may be undertaken by the DOT to determine what species may be utilizing each structure identified as supporting bats prior to allowing any work to proceed.
3. Any questions should be directed to the District Environmental Manager.

Appendix D

Section 106 Consultation

Item	Appendix Page
MPPA Determination Form	D1 to D4
INDOT CRO Email Correspondence	D5 to D6
Phase 1a Archaeological Report	D7 to D8

Minor Projects PA Project Assessment Form – Category B Projects with Archaeology Work

Date: 3/26/20

Project Designation Number: 1702071

Route Number: SR 62

Project Description: Small Structure Replacement on SR62 over UNT to Otter Creek, 4.79 miles E of SR 61

The Indiana Department of Transportation (INDOT) and Federal Highway Administration (FHWA) intends to proceed to rehabilitate the structure carrying State Road (SR) 62 over UNT to Otter Creek (CV 062-087-48.79) located in Warrick County, Indiana. This project is located on SR 62, approximately 4.79 miles east of SR 61 in Section 33 of Township 5 South, Range 7 West, as shown on the De Gonia Springs USGS 7.5 Minute Topographic Map. Culvert No. 062-087-48.79 is an 14ft. span by 8ft. rise concrete slab-top box culvert that is approximately 30ft. in length. The existing culvert is showing signs of exposed rebar, minor section loss, and efflorescence and will be replaced with a new 14ft. span by 8ft. rise reinforced concrete box culvert. In addition to the culvert replacement, the project will include replacing the existing guardrails, widening of the roadway shoulders, milling and resurfacing of the existing travel lanes, placement of riprap for scour protection, and the new culvert will be sumped 18 in. The purpose of this project is to address the deteriorating conditions exhibited by the culvert carrying SR-62 over UNT to Otter Creek.

In order to maintain a low structure elevation and to avoid a grade raise, these options would need to be sumped 18 inches. Class 1 revetment riprap would need to be placed at the structure outlet as a scour countermeasure. No tree removal is expected to occur as part of this project. Approximately 0.49 acre of right-of-way is anticipated to be acquired. The project limits will extend approximately 400ft. along SR 62. No relocations will be required to complete this project as it is proposed.

Feature crossed (if applicable): UNT Otter Creek

Township: Skelton

City/County: Tennyson, Warrick County

Information reviewed (please check all that apply):

General project location map USGS map Aerial photograph Interim Report

Written description of project area General project area photos Soil survey data

Previously completed historic property reports Previously completed archaeology reports

Bridge Inspection Information

Other (please specify): SHAARD GIS; SHAARD; Google online street-view imagery; Indiana Historic Building, Bridges, and Cemeteries (IHBBC) map; Bridge Inspection Application System (BIAS); County GIS data (accessed via <https://whitein.elevatemaps.io/>); 2010 INDOT-sponsored *Historic Bridge Inventory (HBI)*; project information provided by GAI Consultant, Inc. & NS Services., dated 12/19/2019 and on file at INDOT-CRO;

Jeffery Plunkett & Stacy N. Bennet

2020 A Phase Ia Archaeological Field Reconnaissance Survey and Records Review for the Proposed Small Structure Replacement on SR 62 over UNT to Otter Creek that is approximately Located 0.29 miles West of the SR 62/SR 161 West Juncture in Skelton Civil Township, Warrick County, Indiana Des. No. 1702071. Report on file, Indiana Department of Transportation, Cultural Resources Office, Indianapolis, IN.

Results of the Records Review for Above-Ground Resources:

With regard to above-ground resources, an INDOT Cultural Resources Office (CRO) historian, who meets the Secretary of the Interior's Professional Qualification Standards as per 36 CFR Part 61, first performed a desktop review, checking the Indiana Register of Historic Sites and Structures (State Register) and National Register of Historic Places (National Register) lists for Warrick County. No listed resources are present within 0.25 mile of the project area, a distance that would serve as an adequate area of potential effects (APE), given the scope of the project and the surrounding terrain.

Warrick County does not have a hard-copy of the Indiana Historic Sites and Structures Inventory (IHSSI) available. Originally surveyed for the IHSSI in 1984--along with neighboring Gibson County--Warrick was re-surveyed in 2010. The 2010 records are only available in the Indiana State Historic Architectural and Archaeological Research Database (SHAARD) and the Indiana Historic Buildings, Bridges, and Cemeteries (IHBBC) map, as are the National Register records for the county. The information contained in these databases supersede the Interim Report hard copies. No IHSSI sites are recorded within 0.25 mile of the project.

According to the IHSSI rating system, generally properties rated "contributing" do not possess the level of historical or architectural significance necessary to be considered individually National Register eligible, although they would contribute to a historic district. If they retain material integrity, properties rated "notable" might possess the necessary level of significance after further research. Properties rated "outstanding" usually possess the necessary level of significance to be considered National Register eligible, if they retain material integrity. Historic districts identified in the IHSSI are usually considered eligible for the National Register.

Land surrounding the project area is rural, consisting of agricultural fields, a few residences, and one commercial business. Above-ground resources near the project location have approximate dates of construction that range from mid-to-late twentieth century to early twenty-first. Based on a review of online street-view imagery and aerial photography, none of these resources possess the requisite levels of material integrity or historic significance for listing in the National Register.

The subject structure (Culvert (CV) No. 062-087-48.7/NBI No. 93007552) is a concrete slabtop culvert. Based on an examination of BIAS reports and photos provided from GAI Consultants/NS Services, the structure exhibits no wood, stone, or brick structures or parts therein. In addition, there is no evidence to suggest that it possesses historical or engineering significance. Based on the available information, as summarized above, no above-ground concerns exist.

Archaeology Report Author/Date:

Stacy N. Bennet and Jeffery A. Plunkett/ / March 24, 2020

Summary of Archaeology Investigation Results:

An archaeological records check and Phase Ia reconnaissance survey of the project area were conducted by NS Services (Plunkett 2020). The records check found that the project area had not been previously examined for archaeological resources and that no previously recorded sites have been identified within or adjacent to it. A 1.2 acre survey area was examined through the excavation of 10 shovel probes, pedestrian survey and visual inspection of disturbed areas. No evidence for archaeological deposits was identified.

The report was reviewed by INDOT Cultural Resources personnel who meet the Secretary of the Interior's Professional Qualification Standards as per 36 CFR Part 61. It is our opinion that the report is acceptable, and we concur with the evaluations and recommendations made by NS Services (Plunkett 2020). Therefore, there are no archaeological concerns.

Does the project appear to fall under the Minor Projects PA? yes no

If yes, please specify category and number (**applicable conditions are highlighted**):

A-6. Repair, replacement, or upgrade of existing safety appurtenances such as guardrails, barriers, glare screens, and crash attenuators in previously disturbed soils.

A-9. Installation, repair, or replacement of erosion control measures along roadways, waterways and bridge piers within previously disturbed soils.

B-9. Installation, replacement, repair, lining, or extension of culverts and other drainage structures under the conditions listed below [**BOTH Condition A, which pertains to Archaeological Resources, and Condition B, which pertains to Above-Ground Resources, must be satisfied**]:

Condition A (Archaeological Resources)

One of the two conditions listed below must be met (*EITHER Condition i or Condition ii must be satisfied*):

- i. Work occurs in previously disturbed soils; *OR*
- ii. **Work occurs in undisturbed soils and an archaeological investigation conducted by the applicant and reviewed by INDOT Cultural Resources Office determines that no National Register-listed or potentially National Register-eligible archaeological resources are present within the project area.** If the archaeological investigation locates National Register-listed or potentially National Register-eligible archaeological resources, then full Section 106 review will be required. Copies of any archaeological reports prepared for the project will be provided to the DHPA and any archaeological site form information will be entered directly into the SHAARD by the applicant. The archaeological reports will also be available for viewing (by Tribes only) on INSCOPE.

Condition B (Above-Ground Resources)

One of the conditions below must be met (*EITHER Condition i or Condition ii must be satisfied*):

- i. Work does not involve installation of a new culvert and other drainage structure, and there are no impacts to unusual features, including but not limited to historic brick or stone sidewalks, curbs or curb ramps, stepped or elevated sidewalks and retaining walls, under one of the following conditions
(*Condition a, Condition b, or Condition c must be satisfied*):
 - a. The structure exhibits no wood, stone, or brick structures or parts therein; *OR*
 - b. The structure exhibits only modern wood, stone, or brick structures or parts therein; *OR*
 - c. The structure exhibits non-modern wood, stone, or brick structures or parts therein and the following conditions are met (*BOTH Condition 1 AND Condition 2 must be met*):
 - 1. Work does not occur adjacent to or within a National Register-listed or National Register eligible district or individual above-ground resource; *AND*
 - 2. The structure lacks sufficient integrity and/or a context that suggests it might have engineering or historical significance. Under this condition, a qualified professional (meeting the Secretary of Interior's Professional Qualification standards [48 Federal Register (FR) 44716]) must prepare an analysis and justification that the structure lacks sufficient integrity and/or a context that suggests it might have engineering or historical significance. This documentation must be reviewed and approved by INDOT Cultural Resources Office.
- ii. Work involves the installation of a new culvert and other drainage structures *AND/OR* there may be impacts to unusual features, including historic brick or stone sidewalks, curbs or curb ramps,

stepped or elevated sidewalks and retaining walls, under the following conditions (*BOTH Condition a and Condition b must be satisfied*):

a. Work does not occur adjacent to or within a National Register-listed or National Register-eligible district or individual above-ground resource; *AND*

b. The subject structure exhibits one of the characteristics described below (*Condition 1, Condition 2 or Condition 3 must be satisfied*).

1. The structure exhibits no wood, stone, or brick structures or parts therein; *OR*

2. The structure exhibits only modern wood, stone, or brick structures or parts therein; *OR*

3. The structure exhibits non-modern wood, stone, or brick structures or parts therein but lacks sufficient integrity and/or a context that suggests it might have engineering or historical significance. Under this condition, a qualified professional (meeting the Secretary of Interior's Professional Qualification standards [48 Federal Register (FR) 44716]) must prepare an analysis and justification that the structure lacks sufficient integrity and/or a context that suggests it might have engineering or historical significance. This documentation must be reviewed and approved by INDOT Cultural Resources Office.

If no, please explain:

Additional comments: If any archaeological artifacts or human remains are uncovered during construction, demolition, or earthmoving activities, construction in the immediate area of the find will be stopped, and the INDOT Cultural Resources Office and the Division of Historic Preservation and Archaeology will be notified immediately.

INDOT Cultural Resources staff reviewer(s): Patricia Jo Korzeniewski and Clint Kelly

****Be sure to attach this form to the National Environmental Policy Act documentation for this project. Also, the NEPA documentation shall reference and include the description of the specific stipulation in the PA that qualifies the project as exempt from further Section 106 review.*

From: Korzeniewski, Patricia J <PKorzeniewski@indot.IN.gov>
Sent: Thursday, March 26, 2020 2:27 PM
To: Howder, Aubrey; Harlan Ford; Falls, Ryan G; Jeff Plunkett
Cc: Miller, Shaun (INDOT); Branigin, Susan
Subject: RE: MPPA Submittal for Des No. 1702071
Attachments: MPPA_B-9_A-6,A-9_1702071_2020_3_26.pdf

Follow Up Flag: Follow up
Flag Status: Flagged

EXTERNAL E-MAIL MESSAGE

Good Afternoon,

Thank you for submitting the revised archaeological short report which has been reviewed by INDOT Cultural Resources personnel who meet the Secretary of the Interior's Professional Qualification Standards as per 36 CFR Part 61. It is our opinion that the report is acceptable, and we concur with the evaluations and recommendations made by Plunkett. Please forward one hard copy and PDF of the report to DHPA, indicating in the cover letter that the project qualified as a Minor Project and therefore the report is for their records only and no formal review is required under Section 106.

Please submit both electronic and paper copies of the approved report to SHPO for review and also post a copy of the report to INSCOPE for tribal review. In addition, we ask that a copy of the SHPO submittal be sent to INDOT CRO care of PKorzeniewski@indot.in.gov during the time of submission. If there are any questions or concerns regarding this matter, please contact me by email or at 317-233-2093. Thank you very much.

Patricia Jo Korzeniewski
Archaeologist and Environmental Manager
INDOT, Cultural Resources Office
PKorzeniewski@indot.in.gov
(317) 233-2093

From: Miller, Shaun (INDOT) <smiller@indot.IN.gov>
Sent: Wednesday, March 25, 2020 3:34 PM
To: Korzeniewski, Patricia J <PKorzeniewski@indot.IN.gov>
Cc: Branigin, Susan <SBranch@indot.IN.gov>; Howder, Aubrey <AHowder@indot.IN.gov>; Harlan Ford <H.Ford@gaiconsultants.com>; Falls, Ryan G <RFalls@indot.IN.gov>; Jeff Plunkett <j.plunkett@nsenvservices.com>
Subject: FW: MPPA Submittal for Des No. 1702071

Patty Jo,

Attached is the revised ASR for this small structure replacement project. I don't think any aspect of the project has changed since the previous submission.

Thank you,

Shaun Miller
INDOT, Cultural Resources Office
Archaeology Team Lead
(317)233-6795

From: Harlan Ford <H.Ford@gaiconsultants.com>
Sent: Wednesday, March 25, 2020 8:14 AM
To: Branigin, Susan <SBranigin@indot.IN.gov>
Cc: Kumar, Anuradha <akumar@indot.IN.gov>; Miller, Shaun (INDOT) <smiller@indot.IN.gov>
Subject: MPPA Submittal for Des No. 1702071

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Good Morning Susan,

I am submitting a request to have the above mentioned project reviewed under Category B: Type 9 and Category A: Types 6 & 9. I have attached a shapefile for the project location, as well as some maps and photos for your convenience. As this project will take place in undisturbed soils, I have also attached the archeological short report that was prepared for this project.

Please note: This project was previously submitted to your office on December 12, 2019 and it was determined that the area would need to be re-surveyed by NS Services due to the ROW. We are now re-submitting this project for your review.

Please let me know if you need anything else!

Thanks for your time,

Harlan M. Ford
Environmental Specialist

GAI Consultants, 201 N. Illinois Street, Suite 1700, Indianapolis, IN 46204
T 317.570.6800 **D** 317.436.9142 **M** 423.458.5979

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INDIANA ARCHAEOLOGICAL SHORT REPORT

State Form 54566 (1-11)

INDIANA DEPARTMENT OF NATURAL RESOURCES DIVISION OF HISTORIC PRESERVATION AND ARCHAEOLOGY

402 West Washington Street, Room W274
Indianapolis, Indiana 46204-2739
Telephone Number: (317) 232-1646
Fax Number: (317) 232-0693
E-mail: dhpa@dnr.IN.gov

Where applicable, the use of this form is recommended but not required by the Division of Historic Preservation and Archaeology.

Author: Stacy N. Bennett and Jeffrey A. Plunkett

Date (month, day, year): March 24, 2020

Project Title: Phase Ia Archaeological Field Reconnaissance for a Small Structure Replacement on SR 62 over UNT to Otter Creek, Located 4.79 miles east of SR 61 in Skelton Civil Township, Warrick County, Indiana (Des. No. 1702071)

PROJECT OVERVIEW

Project Description: The Indiana Department of Transportation (INDOT) and Federal Highway Administration (FHWA) intends to proceed to rehabilitate the structure carrying State Road (SR) 62 over UNT to Otter Creek (CV 062-087-48.79) located in Warrick County, Indiana. This project is located on SR 62, approximately 4.79 miles east of SR 61 in Section 33 of Township 5 South, Range 7 West, as shown on the De Gonia Springs USGS 7.5-Minute Topographic Map. The existing culvert is a 14 ft. span by 6.2 ft. rise slab top that is approximately 30 ft. in length. The existing structure is showing signs of exposed rebar, minor section loss, and efflorescence. The existing culvert will be replaced with a new 14 ft. span by 8 ft. rise reinforced concrete box culvert. In addition to the culvert replacement, the project will include replacing the existing guardrails, widening of the roadway shoulders, milling and resurfacing of the existing travel lanes, placement of riprap for scour protection, and the new culvert will be sumped 18 in. The purpose of this project is to address the deteriorating conditions exhibited by the culvert carrying SR 62 over UNT to Otter Creek.

INDOT Designation Number/ Contract Number: 1702071 Project Number: 19357

DHPA Number: Approved DHPA Plan Number:

Prepared For: GAI Consultants

Contact Person: David Bourff

Address: 201 N. Illinois Street, Suite 1700

City: Indianapolis State: IN ZIP Code: 46204

Telephone Number: (317) 436-4841 Email Address: D.Bourff@gaiconsultants.com

Principal Investigator: Jeffrey A. Plunkett

Signature: Jeffrey A. Plunkett
Digitally signed by Jeffrey A. Plunkett
DN: cn=Jeffrey A. Plunkett, o=NS Services, LLC, ou,
email=j.plunkett@nsenservices.com, c=US
Date: 2020.03.24 19:30:31 -0400

Company/Institution: NS Services, LLC

Address: 4974 S. Cobblestone Drive

Actual Area Surveyed hectares: acres:

Comments:

One shovel probe was excavated within an area of Markland silt loam located on the north side of SR 62 towards the west end of the project area. Soils in this probe consisted of brown (10YR5/3) silt loam excavated to a depth of 22 cm where a buried cable was encountered.

Soils within the remainder of the project area consisted of approximately 30 cm of brown (10YR5/3) silt loam over a brown (10YR5/3) silt loam with 40% light yellowish brown (10YR6/4) silt loam mottles excavated to a maximum depth of 40 cm below surface.

RECOMMENDATION

- The archaeological records check has determined that the project area has the potential to contain archaeological resources and a Phase Ia archaeological reconnaissance is recommended.
- The archaeological records check has determined that the project area does not have the potential to contain archaeological resources and no further work is recommended before the project is allowed to proceed.
- The Phase Ia archaeological reconnaissance has located no archaeological sites within the project area and it is recommended that the project be allowed to proceed as planned.
- The Phase Ia archaeological reconnaissance has determined that the project area includes landforms which have the potential to contain buried archaeological deposits. It is recommended that Phase Ic archaeological subsurface reconnaissance be conducted before the project is allowed to proceed.
- The Phase Ia archaeological reconnaissance has determined that the project area is within 100 feet of a cemetery and a Cemetery Development Plan is required per IC-14-21-1-26.5.

Cemetery Name:

Other Recommendations/Commitments:

Pursuant to IC-14-21-1, if any archaeological artifacts or human remains are uncovered during construction, demolition, or earthmoving activities, state law (Indiana Code 14-21-1-27 and 29) requires that the discovery must be reported to the Department of Natural Resources within two (2) business days. In that event, please call (317) 232-1646.

ATTACHMENTS

- Figure showing project location within Indiana.
- USGS topographic map showing the project area (1:24,000 scale).
- Aerial photograph showing the project area, land use, and survey methods.
- Photographs of the project area.
- Project plans (if available)

Other Attachments:

DeRegnaucourt, Robert A.
1979 Archaeological Survey of Project RS-3887(), Replacement of the Bridge over Otter Creek on S.R. 62 near Degonia Springs in Warrick County, Indiana. Ball State University, Muncie, Indiana. Prepared for the Indiana State Highway Commission, Indianapolis.

Appendix E

Red Flag and Hazardous Materials

Item	Appendix Page
Red Flag Investigation	E1 to E9



INDIANA DEPARTMENT OF TRANSPORTATION

100 North Senate Avenue
Room N642
Indianapolis, Indiana 46204

PHONE: (317) 232-5113
FAX: (317) 233-4929

Eric Holcomb, Governor
Joe McGuinness,
Commissioner

Date: August 5, 2019

To: Site Assessment & Management
Environmental Policy Office - Environmental Services Division
Indiana Department of Transportation
100 N Senate Avenue, Room N642
Indianapolis, IN 46204

From: Harlan Ford
GAI Consultants Inc.
201 N. Illinois Street
Indianapolis, IN
H.Ford@gaiconsultants.com

Re: RED FLAG INVESTIGATION
1702071, State Project
Small Structure Replacement
SR-62
Warrick County, Indiana

PROJECT DESCRIPTION

Brief Description of Project: INDOT is proposing to replace the existing Culvert structure (CV # 062-087-48.79) located on SR-62 in Warrick County. This project is located approximately 4.79 miles east of SR-61 in Section 33 of Township 5 South, Range 7 West, as shown on the De Gonia Springs USGS 7.5 Minute Topographic Map. The existing culvert is a 14ft. span by 6.2ft. rise slab top that is approximately 30ft. in length. The existing structure is exhibiting exposed rebar, minor section loss, and efflorescence. As the project is currently proposed, there are three replacement options being considered and they are:

- Option #1: 14' x 8' Reinforced Concrete Box (RCB)
- Option #2: 14' x 8' 3-Sided Flat Top
- Option #3: 14' x 8' 3-Sided Arch Top

In order to maintain a low structure elevation and to avoid a grade raise, these options would need to be sumped 18 inches. Class 1 revetment riprap would need to be placed at the structure outlet as a scour countermeasure. No tree removal is expected to occur as part of this project. No right of way is expected to be acquired for this project.

Bridge and/or Culvert Project: Yes No Structure # CV 062-087-48.79

If this is a bridge project, is the bridge Historical? Yes No , Select Non-Select

(Note: If the project involves a historical bridge, please include the bridge information in the Recommendations Section of the report).

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Proposed right of way: Temporary # Acres 0.20 Permanent # Acres 0.10, Not Applicable

Type of excavation: Excavation will be required to remove the old structure and properly sump the new structure. The new structure will match the existing flowline and it is expected that excavation will not extend deeper than previous construction limits.

Maintenance of traffic: A Maintenance of Traffic plan has not yet been determined for this project. MOT options will be examined as part of the design process and the most feasible and prudent option will be selected.

Work in waterway: Yes No Below ordinary high water mark: Yes No

State Project: LPA:

Any other factors influencing recommendations: N/A

INFRASTRUCTURE TABLE AND SUMMARY

Infrastructure			
Indicate the number of items of concern found within the 0.5 mile search radius. If there are no items, please indicate N/A:			
Religious Facilities	N/A	Recreational Facilities	N/A
Airports ¹	N/A	Pipelines	N/A
Cemeteries	N/A	Railroads	N/A
Hospitals	N/A	Trails	N/A
Schools	N/A	Managed Lands	N/A

¹In order to complete the required airport review, a review of public airports within 3.8 miles (20,000 feet) is required.

Explanation: No infrastructure resources were identified within the 0.5 mile search radius.

WATER RESOURCES TABLE AND SUMMARY

Water Resources			
Indicate the number of items of concern found within the 0.5 mile search radius. If there are no items, please indicate N/A:			
NWI - Points	N/A	Canal Routes - Historic	N/A
Karst Springs	N/A	NWI - Wetlands	25
Canal Structures – Historic	N/A	Lakes	8
NPS NRI Listed	N/A	Floodplain - DFIRM	1
NWI-Lines	3	Cave Entrance Density	N/A
IDEM 303d Listed Streams and Lakes (Impaired)	N/A	Sinkhole Areas	N/A
Rivers and Streams	3	Sinking-Stream Basins	N/A

Explanation:

NWI Lines: A total of three (3) NWI lines were identified within 0.5 mile of the project area. The nearest NWI line is located approximately 0.43 mile south of the project area. No impact is expected.

Rivers and Streams: A total of three (3) stream segments were identified within 0.5 mile of the project area. The nearest stream, UNT to Otter Creek, is located within the project area but is not mapped as flowing through the project area. Due to the proximity of the UNT to Otter Creek it is likely that additional water resources, such as unnamed tributaries,

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regulated drains, wetlands, and roadside ditches are located in the project area. A Waters of the U.S. Report will be prepared and coordination with INDOT ES Ecology and Waterway Permitting will occur.

NWI Wetlands: A total of twenty-five (25) NWI wetlands was identified within 0.5 mile of the project area. The nearest mapped NWI wetland is located approximately 0.06 mile southeast of the project area. No impact is expected.

Lakes: A total of eight (8) lakes were identified within 0.5 mile of the project area. The nearest mapped lake is located approximately 0.11 mile southeast of the project area. No impact is expected.

Floodplain: One (1) floodplain polygon is located within the 0.5 mile search radius. The mapped floodplain is located within the project area. Coordination with INDOT Ecology and Waterway Permitting will occur.

URBANIZED AREA BOUNDARY SUMMARY

Explanation: N/A

MINING AND MINERAL EXPLORATION TABLE AND SUMMARY

Mining/Mineral Exploration			
Indicate the number of items of concern found within the 0.5 mile search radius. If there are no items, please indicate N/A:			
Petroleum Wells	N/A	Mineral Resources	N/A
Mines – Surface	N/A	Mines – Underground	N/A

Explanation: No mining/mineral resources were identified within the 0.5 mile search radius.

HAZARDOUS MATERIAL CONCERNS TABLE AND SUMMARY

Hazardous Material Concerns			
Indicate the number of items of concern found within the 0.5 mile search radius. If there are no items, please indicate N/A:			
Superfund	N/A	Manufactured Gas Plant Sites	N/A
RCRA Generator/ TSD	N/A	Open Dump Waste Sites	N/A
RCRA Corrective Action Sites	N/A	Restricted Waste Sites	N/A
State Cleanup Sites	N/A	Waste Transfer Stations	N/A
Septage Waste Sites	N/A	Tire Waste Sites	N/A
Underground Storage Tank (UST) Sites	N/A	Confined Feeding Operations (CFO)	N/A
Voluntary Remediation Program	N/A	Brownfields	N/A
Construction Demolition Waste	N/A	Institutional Controls	N/A
Solid Waste Landfill	N/A	NPDES Facilities	N/A
Infectious/Medical Waste Sites	N/A	NPDES Pipe Locations	N/A
Leaking Underground Storage (LUST) Sites	N/A	Notice of Contamination Sites	N/A

Explanation: No hazardous material concerns were identified within the 0.5 mile search radius.

ECOLOGICAL INFORMATION SUMMARY

The Warrick County listing of the Indiana Natural Heritage Data Center information on endangered, threatened, or rare (ETR) species and high quality natural communities is attached with ETR species highlighted. A preliminary review of the Indiana Natural Heritage Database by INDOT Environmental Services did not indicate the presence of ETR species within the 0.5 mile search radius. Coordination with the USFWS and IDNR will occur.

Bats: A review of the USFWS database did not indicate the presence of endangered bat species in or within 0.5 mile of the project area. The project area is located in a rural area surrounded primarily by farm fields. The August 23, 2018 inspection report for CV 062-087-48.79 states that no evidence of bats was seen or heard under the bridge. The range-wide programmatic consultation for the Indiana Bat and Northern Long-eared Bat will be completed according to "Using the USFWS's IPaC System Listed Bat Consultation for INDOT Projects."

Rusty Patched Bumble Bee: An inquiry using the USFWS Information for Planning and Consulting (IPaC) website did not indicate the presence of the federally endangered species, the Rusty Patched Bumble Bee, in or within 0.5 miles of the project area. No impact is expected.

RECOMMENDATIONS SECTION

Include recommendations from each section. If there are no recommendations, please indicate N/A:

INFRASTRUCTURE: N/A

WATER RESOURCES: A Waters of the U.S. Report will be prepared and coordination with INDOT ES Ecology and Waterway Permitting will occur due to the presence of the following water resources:

- One (1) floodplain polygon is mapped within the project area. (coordination only)
- Due to the proximity of the UNT to Otter Creek it is likely that additional water resources, such as unnamed tributaries, regulated drains, wetlands, and roadside ditches are located in the project area.

URBANIZED AREA BOUNDARY: N/A

MINING/MINERAL EXPLORATION: N/A

HAZMAT CONCERNS: N/A

ECOLOGICAL INFORMATION: Coordination with the USFWS and IDNR will occur. The range-wide programmatic consultation for the Indiana Bat and Northern Long-eared Bat will be completed according to "Using the USFWS's IPaC System Listed Bat Consultation for INDOT Projects."

INDOT Environmental Services concurrence:

Nicole Fohey
Breting

Digitally signed by
Nicole Fohey-Breting
Date: 2019.09.19
22:14:24 -04'00'

(Signature)

Prepared by:
Harlan M. Ford
Project Environmental Specialist
GAI Consultants Inc.

Graphics:

A map for each report section with a 0.5 mile search radius buffer around all project area(s) showing all items identified as possible items of concern is attached. If there is not a section map included, please change the YES to N/A:

SITE LOCATION: YES

INFRASTRUCTURE: N/A

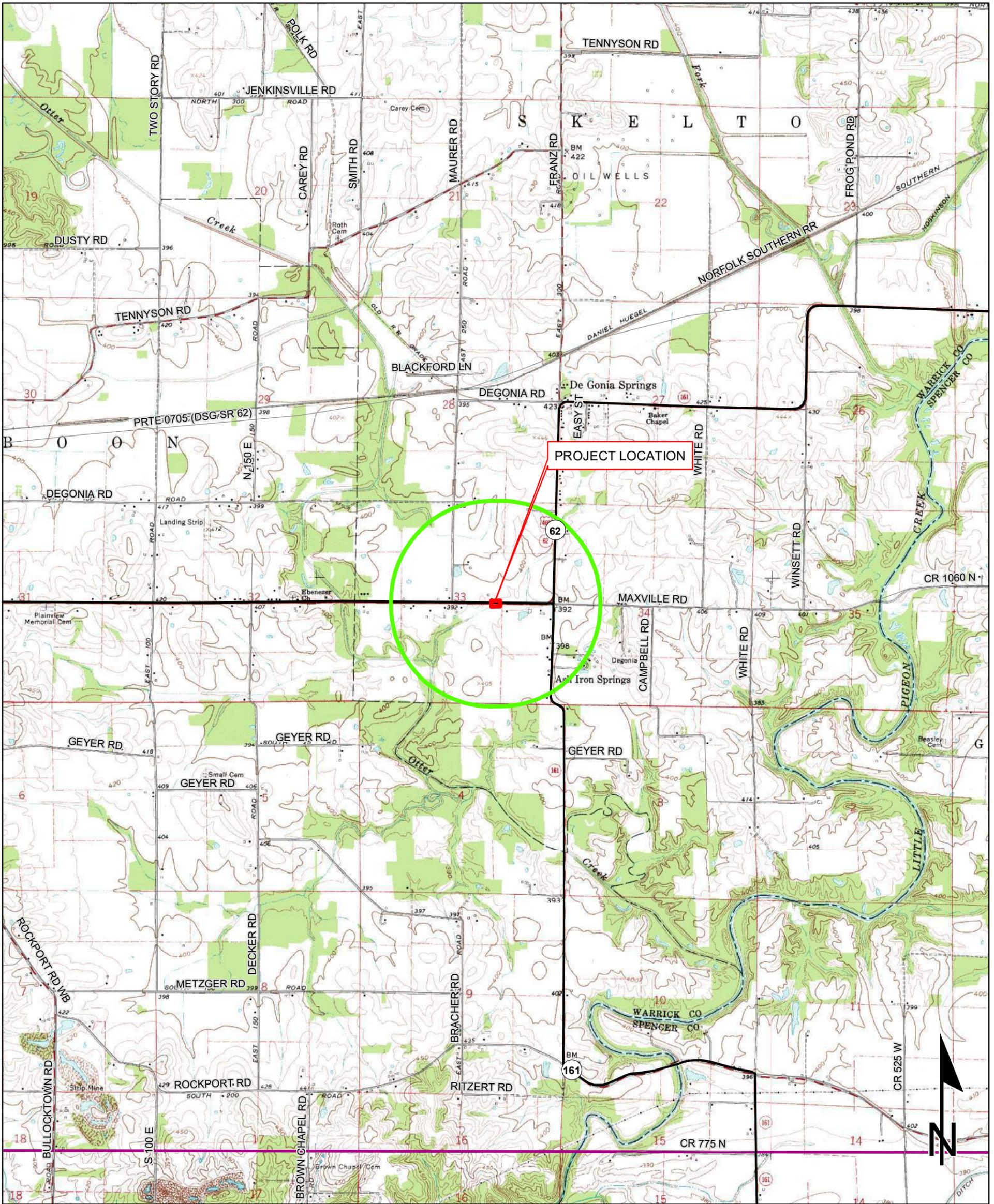
WATER RESOURCES: YES

URBANIZED AREA BOUNDARY: N/A

MINING/MINERAL EXPLORATION: N/A

HAZMAT CONCERNS: N/A

Red Flag Investigation- Site Location Map
SR 62 over UNT Otter Creek, 4.79 miles E of SR 61
Des. No. 1702071, Small Structure Replacement
Warrick County, Indiana



Sources: 0.6 0.3 0 0.6 Miles
Non Orthophotography
Data - Obtained from the State of Indiana Geographical Information Office Library
Orthophotography - Obtained from Indiana Map Framework Data (www.indianamap.org)
Map Projection: UTM Zone 16 N **Map Datum:** NAD83

This map is intended to serve as an aid in graphic representation only. This information is not warranted for accuracy or other purposes.

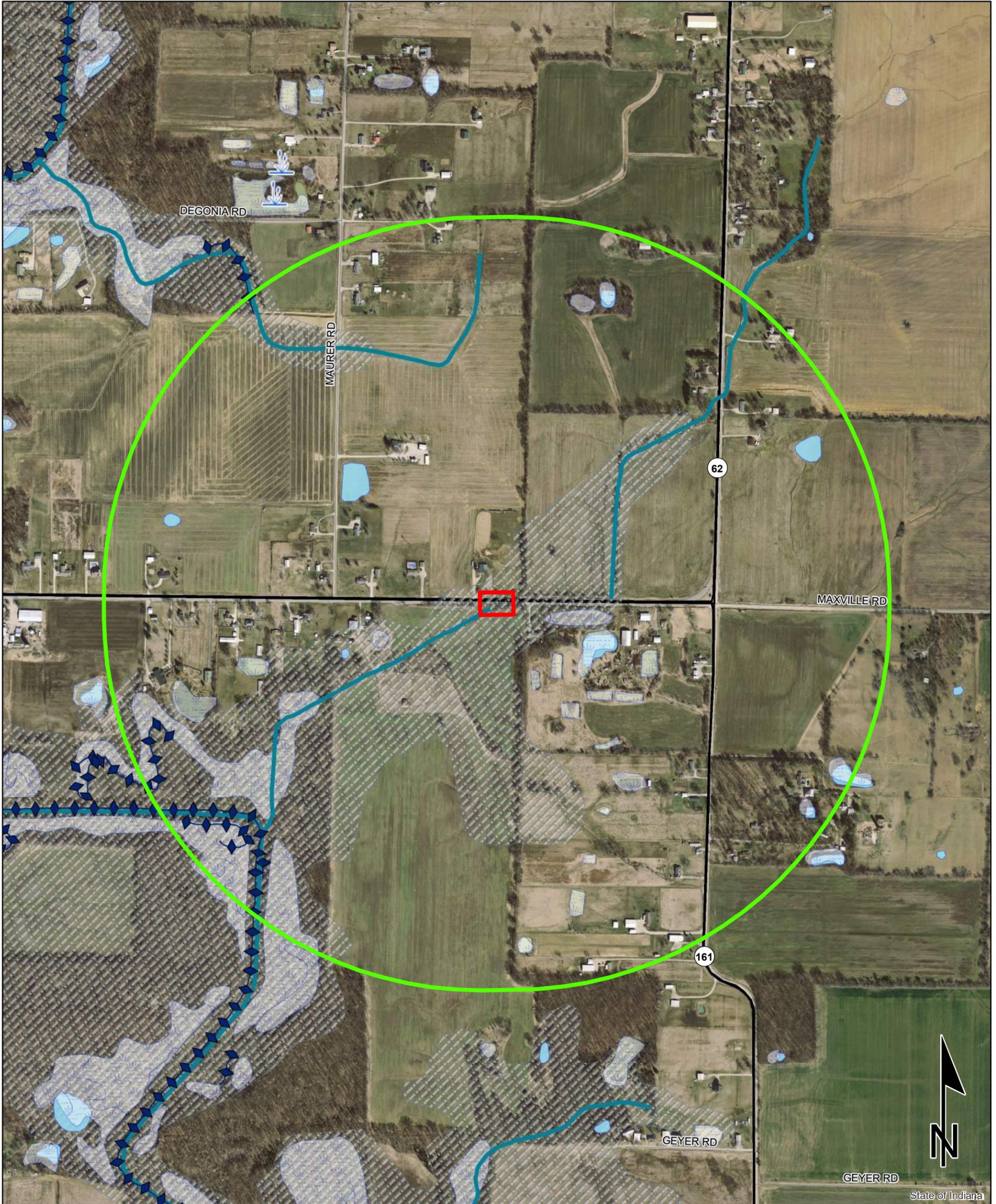
DE GONIA SPRINGS
QUADRANGLE
INDIANA
7.5 MINUTE SERIES

Red Flag Investigation - Water Resources

SR 62 over UNT Otter Creek, 4.79 miles E of SR 61

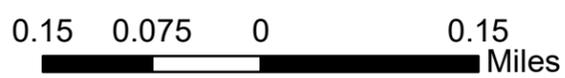
Des. No. 1702071, Small Structure Replacement

Warrick County, Indiana



Sources:
Non Orthophotography
Data - Obtained from the State of Indiana Geographical Information Office Library
Orthophotography - Obtained from Indiana Map Framework Data (www.indianamap.org)
Map Projection: UTM Zone 16 N **Map Datum:** NAD83

This map is intended to serve as an aid in graphic representation only. This information is not warranted for accuracy or other purposes.



NWI - Point	Wetlands	Project Area
Karst Spring	Lake	Half Mile Radius
NWI- Line	Floodplain - DFIRM	Toll
Impaired_Stream_Lake	Cave Entrance Density	Interstate
NPS NRI listed	Sinkhole Area	State Route
River	Sinking-Stream Basin	US Route
Canal Structure - Historic	County Boundary	Local Road
Canal Route - Historic		

Indiana County Endangered, Threatened and Rare Species List

County: Warrick

Species Name	Common Name	FED	STATE	GRANK	SRANK
Mollusk: Bivalvia (Mussels)					
Lampsilis ovata	Pocketbook			G5	S2
Ligumia recta	Black Sandshell			G4G5	S2
Plethobasus cyphus	Sheepnose	LE	SE	G3	S1
Pleurobema cordatum	Ohio Pigtoe		SSC	G4	S2
Fish					
Etheostoma squamiceps	Spottail Darter			G4G5	S2S3
Reptile					
Nerodia erythrogaster neglecta	Copperbelly Water Snake	PS:LT	SE	G5T3	S2
Ophedrys aestivus	Rough Green Snake		SSC	G5	S3
Bird					
Ammodramus henslowii	Henslow's Sparrow		SE	G4	S3B
Asio flammeus	Short-eared Owl		SE	G5	S2
Botaurus lentiginosus	American Bittern		SE	G5	S2B
Buteo lineatus	Red-shouldered Hawk		SSC	G5	S3
Circus hudsonius	Northern Harrier		SE	G5	S2
Cistothorus platensis	Sedge Wren		SE	G5	S3B
Haliaeetus leucocephalus	Bald Eagle		SSC	G5	S2
Helmitheros vermivorus	Worm-eating Warbler		SSC	G5	S3B
Ictinia mississippiensis	Mississippi Kite		SSC	G5	S1B
Ixobrychus exilis	Least Bittern		SE	G5	S3B
Lanius ludovicianus	Loggerhead Shrike		SE	G4	S3B
Nyctanassa violacea	Yellow-crowned Night-heron		SE	G5	S2B
Pandion haliaetus	Osprey		SE	G5	S1B
Rallus limicola	Virginia Rail		SE	G5	S3B
Setophaga cerulea	Cerulean Warbler		SE	G4	S3B
Tyto alba	Barn Owl		SE	G5	S2
Mammal					
Lasiurus borealis	Eastern Red Bat		SSC	G3G4	S4
Myotis sodalis	Indiana Bat or Social Myotis	LE	SE	G2	S1
Nycticeius humeralis	Evening Bat		SE	G5	S1
Sylvilagus aquaticus	Swamp Rabbit		SE	G5	S1
Taxidea taxus	American Badger		SSC	G5	S2
Vascular Plant					
Bacopa rotundifolia	Roundleaf Water-hyssop		ST	G5	S1
Carex bushii	Bush's Sedge		ST	G4	S1
Carex socialis	Social Sedge		SR	G4	S2
Catalpa speciosa	Northern Catalpa		SR	G4?	S2
Clematis pitcheri	Pitcher Leather-flower		SR	G4G5	S2
Croton willdenowii	Elliptical Rushfoil		SE	G5	S1

Indiana Natural Heritage Data Center
Division of Nature Preserves
Indiana Department of Natural Resources
This data is not the result of comprehensive county surveys.

Fed: LE = Endangered; LT = Threatened; C = candidate; PDL = proposed for delisting
State: SE = state endangered; ST = state threatened; SR = state rare; SSC = state species of special concern; SX = state extirpated; SG = state significant; WL = watch list
GRANK: Global Heritage Rank: G1 = critically imperiled globally; G2 = imperiled globally; G3 = rare or uncommon globally; G4 = widespread and abundant globally but with long term concerns; G5 = widespread and abundant globally; G? = unranked; GX = extinct; Q = uncertain rank; T = taxonomic subunit rank
SRANK: State Heritage Rank: S1 = critically imperiled in state; S2 = imperiled in state; S3 = rare or uncommon in state; G4 = widespread and abundant in state but with long term concern; SG = state significant; SH = historical in state; SX = state extirpated; B = breeding status; S? = unranked; SNR = unranked; SNA = nonbreeding status unranked

Indiana County Endangered, Threatened and Rare Species List

County: Warrick

Species Name	Common Name	FED	STATE	GRANK	SRANK
Dicliptera brachiata	Wild Mudwort		SE	G5	S1
Didiplis diandra	Water-purslane		SE	G5	S2
Eleocharis wolfii	Wolf Spikerush		SR	G3G5	S2
Festuca paradoxa	Cluster Fescue		ST	G5	S1
Hypericum denticulatum	Coppery St. John's-wort		ST	G5	S2
Iresine rhizomatosa	Eastern Bloodleaf		SR	G5	S2
Nothoscordum bivalve	Crow-poison		SR	G4	S2
Orobanche riparia	Bottomland Broomrape		SE	G4?	S2
Perideridia americana	Eastern Eulophus		SE	G4	S1
Poa wolfii	Wolf Bluegrass		SR	G4	S2
Rudbeckia fulgida var. fulgida	Orange Coneflower		WL	G5T4?	S2
Scutellaria parvula var. australis	Southern Skullcap		WL	G4T4?	S2
Stenanthium gramineum	Eastern Featherbells		ST	G4G5	S1
Strophostyles leiosperma	Slick-seed Wild-bean		ST	G5	S2
Styrax americanus	American Snowbell		WL	G5	S3
Taxodium distichum	Bald Cypress		ST	G5	S2
Thalictrum pubescens	Tall Meadowrue		ST	G5	S2
Trachelospermum difforme	Climbing Dogbane		SR	G4G5	S2
Trifolium reflexum var. glabrum	Buffalo Clover		SE	G5T2T4Q	S1
High Quality Natural Community					
Forest - flatwoods dry	Dry Flatwoods		SG	G2?	S2
Forest - floodplain wet	Wet Floodplain Forest		SG	G3?	S3
Forest - upland dry-mesic Southern Bottomlands	Southern Bottomlands Dry-mesic Upland Forest			GNR	S1
Other Significant Feature					
Freshwater Mussel Concentration Area	Mussel Bed		SG	G3	SNR

Indiana Natural Heritage Data Center
Division of Nature Preserves
Indiana Department of Natural Resources
This data is not the result of comprehensive county surveys.

Fed: LE = Endangered; LT = Threatened; C = candidate; PDL = proposed for delisting
State: SE = state endangered; ST = state threatened; SR = state rare; SSC = state species of special concern; SX = state extirpated; SG = state significant; WL = watch list
GRANK: Global Heritage Rank: G1 = critically imperiled globally; G2 = imperiled globally; G3 = rare or uncommon globally; G4 = widespread and abundant globally but with long term concerns; G5 = widespread and abundant globally; G? = unranked; GX = extinct; Q = uncertain rank; T = taxonomic subunit rank
SRANK: State Heritage Rank: S1 = critically imperiled in state; S2 = imperiled in state; S3 = rare or uncommon in state; G4 = widespread and abundant in state but with long term concern; SG = state significant; SH = historical in state; SX = state extirpated; B = breeding status; S? = unranked; SNR = unranked; SNA = nonbreeding status unranked

Appendix F

Water Resources

Item	Appendix Page
Wetland Delineation and Stream Identification Report	F1 to F19
INDOT EWPO Approval Email	F20

Waters of the U.S. Determination

SR 62 over UNT to Otter Creek
Small Structure Replacement Project
Des. No.: 1702071
Warrick County, Indiana
Asset ID #: CV 062-087-48.79

Prepared for:
Indiana Department of Transportation (INDOT)
Vincennes District
3650 South U.S. Highway 41
Vincennes, IN 47591

Prepared by:
GAI Consultants, Inc.
Indianapolis Office
201 N. Illinois Street, Suite 1700
Indianapolis, Indiana 46204

Author:



Harlan M. Ford
Project Environmental Specialist

Report Completed:
June 12, 2019

INDOT EWPO Approval Date:

Table of Contents

1.0	Introduction	1
2.0	Methods	1
3.0	Background Information.....	2
3.1	National Wetland Inventory.....	2
3.2	Watersheds	2
3.3	NRCS Soil Survey	2
4.0	Results	3
4.1	Waterbodies	3
4.2	Wetlands.....	3
4.3	Roadside Ditches and Other Drainages.....	4
5.0	Conclusions.....	4
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7.0	References.....	5

Table 1 NRCS Soils

Table 2 Waterbodies Identified Within the Project Study Area

Attachments

Project Figures

~~Figure 1 State Location Map~~

~~Figure 2 USGS Topo Map~~

~~Figure 3 Aerial Location Map~~

Figure 4 NWI Wetlands Map

Figure 5 NRCS Soils Map

Figure 6 FEMA Floodzone Map

Figure 7 LiDAR Map

Figure 8 Waters of the US Investigation Map

~~Figure 9 Photo Location Map~~

Duplicate project maps and photos have been removed and included in Appendix B to avoid duplication.

Photographs

Preliminary Jurisdictional Determination Form

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1.0 Introduction

The Indiana Department of Transportation (INDOT) and Federal Highway Administration (FHWA) intends to proceed to rehabilitate the structure carrying State Road (SR) 62 over a UNT to Otter Creek (CV 062-087-48.79) located in Warrick County, Indiana. (Figure 1). The project is located on SR 62, approximately 0.30 miles west of SR 161 in Sections 33 of Township 5 South, Range 7 West, as shown on the De Gonia Springs USGS 7.5 Minute Topographic Map. The existing culvert is a 14ft. span by 6.2ft. rise slab top that is approximately 30ft. in length. The existing structure is showing signs of exposed rebar, minor section loss, and efflorescence. As the project is currently proposed, there are three replacement options being considered and they are:

- Option #1: 14' x 8' RCB
- Option #2: 14' x 8' 3-Sided Flat Top
- Option #3: 14' x 8' 3-Sided Arch Top

In order to maintain a low structure elevation and to avoid a grade raise, these options would need to be sumped 18 inches. Class 1 revetment riprap would need to be placed at the structure inlet and outlet as a scour countermeasure. This project is located within a regulatory floodplain as shown on the FEMA Floodzone Map.

GAI Consultants, Inc. (GAI), on behalf of INDOT, conducted wetland delineations and waterbody investigations of the project study area on October 11, 2018. GAI identified approximate boundaries of waterbodies and wetlands located within the project study area. This study area was determined in the field by GAI based upon likely work areas and impacts to regulated Waters of the U.S. as a result of construction activities. This report describes the methods and results of the environmental field survey.

2.0 Methods

Wetland delineations were conducted in accordance with the 1987 United States Army Corps of Engineers (USACE) *Corps of Engineers Wetlands Delineation Manual* (Environmental Laboratory, 1987) and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Midwest Region (Version 2.0)* (USACE, 2012). Wetlands were classified using the *Classification of Wetlands and Deepwater Habitats of the United States* (Cowardin et al., 1979). Classification of the indicator status of vegetation is based on *The National Wetland Plant List: 2016 wetland ratings* (Lichvar et al. 2016).

The USACE will assert jurisdiction over traditionally navigable waters (TNW), adjacent wetlands, and non-navigable tributaries of TNW that have "relatively permanent" flow, and wetlands that border these waters, regardless of whether or not they are separated by roads, berms, and similar barriers. The USACE will use a case-by-case "significant nexus" analysis to determine whether waters and their adjacent wetlands are jurisdictional. A "significant nexus" can be found where waters, including adjacent wetlands, alter the physical, biological, or chemical integrity of the TNW based on consideration of several factors.

Each wetland and waterbody feature was given a unique map designation and each boundary flag location was recorded using a SX Blue II+ GNSS model global positioning system mapping grade unit with the capability of sub-meter accuracy. Judgmental upland and wetland soil test pits were taken within the study corridor at the discretion of the delineator to confirm the presence or absence of wetlands in areas with exhibiting wetland indicators. Wetland boundaries and other waterbody centerlines and/or perimeters were mapped including ordinary high water mark (OHWM) and top-of-bank (TOB). Waterbody data collected included general morphological characteristics, flow regime, substrate, jurisdictional connection, and significant nexus determination.

All likely jurisdictional streams, waterbodies, and wetlands were evaluated for quality using the 2018 *INDOT Waters of the United States Documentation* three tier classification system (i.e., poor, average, or excellent). Determinations of quality for streams were based on the substrate, riffle and pools, overhead cover, presence of aquatic organisms or potential habitat value, opacity, sinuosity, and riparian width. In instances where mitigation is likely to be required, federal or state aquatic endangered or threatened species are present, or the stream has a designation as a state wild or scenic river, a Headwaters Habitat Evaluation Index (HHEI) or Qualitative Habitat Evaluation Index (QHEI) is used. Wetland quality was derived from metrics in the Indiana Wetland Rapid Assessment Protocol (In-WRAP 2005) and the wetland quality descriptions on the basis of disturbance, native plant diversity and cover, and content of exotic or invasive species.

3.0 Background Information

Prior to the fieldwork, background information and existing mapping was reviewed to establish the probability and potential location of wetlands on the site. Available information from government agency documents and private sources were collected and reviewed in order to characterize the project area, as well as identify potential wetlands and other regulated features located within the project study area.

The growing season in the project area is generally between April and October in Warrick County, Indiana [United States Department of Agriculture, Natural Resource Conservation Service (USDA-NRCS)] (USDA-NRCS, 2016). Field observations were supplemented with an intensive review of United States Fish and Wildlife Service (USFWS) National Wetlands Inventory (NWI) mapping, USDA soils mapping, historical aerial photography (ArcGIS and Google Earth), and local landscape topography/morphology.

The project study area topography is mostly flat, with elevations ranging from 390 to 400 ft. Drainage patterns were identified via topographic elevation contours to drain towards the UNT to Otter Creek. The project study area is within the Booneville Hills physiographic region of the Southern Hills and Lowlands Region (Gray, 2000). Land use in the vicinity of the project is primarily rural residential and agriculture.

3.1 National Wetland Inventory

The USFWS' NWI Wetlands Mapper was reviewed for potential wetland locations. The NWI data of the area (Figure 4) identified one NWI wetlands within the project study area. This NWI mapped wetland is located approximately .01 miles southwest of the structure and is confined to the channel of the UNT to Otter Creek. This wetland is classified as a R4SBC wetland and impacts are anticipated. There are four additional mapped NWI Wetlands close to the project area. All four of these mapped NWI Wetlands are classified as PUBGx wetlands. Out of these four wetlands, the nearest is located 0.05 miles east of the project area and no impacts are anticipated.

Watersheds

The project study area is in the Lower Ohio-Little Pigeon, Lower Ohio Basin, and Lower Ohio sub-region, of the Ohio region, 12 digit hydrologic unit code (HUC12) 051402011002.

3.2 NRCS Soil Survey

The NRCS Soil Survey of Warrick County identified two soil series within the project study area (Figure 5, Table 1). One soil series was identified as being hydric.

Table 1. NRCS Soil Survey Area of Interest Results

Map Unit Name (Map Symbol)	Drainage Properties	Hydrology	Hydric Status
Wakeland Silt Loam (Wa)	Somewhat Poorly Drained	No Ponding, Frequent Flooding	Yes (1-32%)
Markland Silt Loam (MkB2)	Moderately Well Drained	No Ponding, No Flooding	No (0%)

4.0 Results

Two likely jurisdictional streams were identified within the study area (Figure 8).

4.1 Waterbodies

Detailed descriptions of the delineated streams and other waterbodies are discussed below. Stream features and other waterbodies are described by morphological characteristics, flow regime, substrate, jurisdictional connection and significant nexus determination. Waterbodies identified within the project study area are represented in Table 2.

The identified stream features are not State Waters Designated for Special Protection in Indiana (Designated Salmonid Waters, Outstanding State Resource Waters, or Exceptional Use Streams). The identified stream features are not on the Indiana Department of Natural Resources Listing of State Natural and Scenic Rivers. The identified streams are not listed on Indiana Department of Natural Resources for Outstanding Rivers in Indiana. The streams are not a USACE Section 10 Waters listed as navigable.

UNT To Otter Creek (approximately 256 feet onsite)

UNT to Otter Creek is an intermittent stream that should be considered a Waters of the U.S. UNT to Otter Creek flows north to south at the structure through the project area and has an upstream drainage area of 0.681 square miles. UNT to Otter Creek is a channelized stream with a substrate comprised primarily of cobble, silt, and artificial (rip-rap). UNT to Otter Creek has a defined bed, bank, and ordinary high water mark (OHWM). The average OHWM is 6 ft. wide and 6 in. deep. There was one large pool area just north of the structure that measured 14 ft. wide and 6 in. deep. The riparian zone consists of maintained lawn in the northern quadrants but is forested in both southern quadrants. The quality of the stream would be considered average due to the amount of instream cover, the composition of the substrate, forested riparian zone, and the presence of riffle and pool complexes. Sinuosity was moderate within the study area sampling reach with three outside bends at the structure. UNT to Otter Creek would likely receive a QHEI score of 45 to 55 due to the above mentioned factors. UNT to Otter Creek discharges to Otter Creek, which then connects with Little Pigeon Creek, then the Ohio River (RPW and TNW). Due to the connection with a TNW, UNT to Otter Creek would be considered a Waters of the U.S.

UNT 1 (approximately 129 feet onsite)

UNT 1 is an ephemeral stream that flows towards UNT to Otter Creek. UNT 1 meets the definition of a tributary by having an OHWM and indirectly flowing through another water to a TNW. UNT 1 has a OHWM of 3 ft. wide and 3 in. deep. The substrate consists primarily of artificial (rip-rap) within the study area. The riparian zone is well vegetated and consisted primarily of spotted lady's thumb (*Polygonum persicaria*, FACW), asiatic dayflower, (*Commelina communis*, FACU) and reed canary grass (*Phalaris arundinacea*, FACW) along the banks. Outside of the banks the vegetation of the riparian zone consisted of cottonwood (*Populus deltoids*, FAC), hackberry (*Celtis occidentalis*, FAC), and pokeweed (*Phytolacca americana*, FACU). UNT 1 would be considered poor quality due to the amount of instream cover, the substrate composition, the riparian zone, low turbidity, no sinuosity, and lack of riffle and pool complexes. UNT 1 would likely receive a QHEI score of 35 to 45 due to the above mentioned factors. UNT 1 discharges into UNT to Otter Creek, which discharges to Otter Creek, which then connects with Little Pigeon Creek, then the Ohio River (RPW and TNW). Due to the connection with a TNW, UNT 1 would be considered a Waters of the U.S.

4.2 Wetlands

No wetland features that met all three of the USACE wetland criteria was observed within the project area. No hydrophytic vegetation or hydrology indicators were observed in conjunction with each other that warranted the collection of a sample data point within the project area.

4.3 Roadside Ditches and Other Drainages

All roadside ditches and other surface drainages within the study area were also evaluated for consideration as jurisdictional Waters of the U.S. with respect to the Clean Water Act Rule [40 CFR 230.3(3)(iii)]. Jurisdictional ditches must meet the definition of tributary, have an OHWM, and flow directly or indirectly through another water to a TNW. Likely jurisdictional ditches include: ditches with perennial flow; ditches with intermittent flow that drain wetlands; or ditches, regardless of flow, that are excavated in or relocate a tributary. Jurisdictional wetlands may be present within, or connected to another jurisdictional Waters of the U.S. in regard to significant nexus analysis through, non-jurisdictional ditches or surface drainages.

Roadside ditches were observed in the northwest and southwest quadrants of the study area. These roadside ditches drain towards the UNT to Otter Creek. The roadside ditch in the northwest quadrant was riprap lined while the roadside ditch in the southwest quadrant exhibited a vegetated substrate. Both roadside ditches connect to the UNT to Otter Creek. These roadside ditches would not likely be considered jurisdictional within the study area. These features were excavated in upland soils to convey upland drainage and had no defined bed and bank or flow regime to establish a Waters of the U.S. designation.

5.0 Conclusions

Wetland delineations and stream investigations for the SR 62 over UNT to Otter Creek small structure replacement project were conducted on October 11, 2018. Two likely jurisdictional streams were identified within the study area.

These waterways are likely Waters of the U.S. Every effort should be taken to avoid and minimize impacts to the waterway and wetlands. If impacts are necessary, then mitigation may be required. The INDOT Environmental Services Division should be contacted immediately if impacts will occur. The final determination of jurisdictional waters is ultimately made by the U.S. Army Corps of Engineers. This report is our best judgment based on the guidelines set forth by the Corps.

6.0 Acknowledgement

This waters determination has been prepared based on the best available information, interpreted in the light of the investigator's training, experience, and professional judgement in conformance with the 1987 *Corps of Engineers Wetland Delineation Manual*, the appropriate regional supplement, the USACE *Jurisdictional Determination Form Instructional Guidebook*, and other appropriate agency guidelines.

Harlan Ford



Project Environmental Specialist

GAI Consultants Inc./INDOT Vincennes District

7.0 References

- Cowardin, D.M., Carter, V., Golet, F.C., and La Roe, E.T. 1979. *Classification of Wetlands and Deepwater Habitats of the United States*. Publication No. FWS/OBS-79/31. United States Department of the Interior, Fish and Wildlife Service, Washington, D.C.
- Environmental Laboratory. 1987. *Corps of Engineers Wetlands Delineation Manual*. Technical Report Y-87-1. United States Department of the Army, United States Army Engineer Waterways Experiment Station, Vicksburg, Mississippi.
- Indiana Department of Transportation (INDOT). 2018. *Waters of the United States Documentation*. Available at <https://www.in.gov/indot/2522.htm>. Accessed December 2018.
- Lichvar, R.W., D.L. Banks, W.N. Kirchner, and N.C. Melvin. 2016. *The National Wetland Plant List: 2016 wetland ratings*. Phytoneuron 2016-30: 1-17. Published 28 April 2016. ISSN 2153 733X.
- Taylor University Environmental Research Group. 2005. *Indiana Wetland Rapid Assessment Protocol, InWRAP. Version 2.5*. Taylor University, Upland, Indiana.
- United States Army Corps of Engineers (USACE). 2012. *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Midwest Region, Version 2.0*. August of 2010.
- United States Department of Agriculture, Natural Resources Conservation Service (USDA-NRCS). 2006. *Land Resource Regions and Major Land Resource Areas of the United States, the Caribbean, and the Pacific*. U.S. Department of Agriculture Handbook, 296.

Table 2
Waterbodies Identified within the Project Study Area

Feature Name	Photo No.	Latitude, Longitude	Type	OHWM Width (ft)	OHWM Depth (ft)	Length or Acres Within Study Area (ft)	USGS Blue-Line Stream	Riffles and Pools	Substrate	Quality	Waters of the U.S.
UNT to Otter Creek	3, 5, 8, 13, 14, 15, 16, 17	38.039752°, -87.192071°	Int.	6	0.5	256	Yes	Yes	Cobble, Artificial, Silt	Average	Yes
UNT 1	9, 11, 12, 18	38.039783°, -87.191939°	Eph.	3	0.25	129	No	No	Artificial	Poor	Yes

~~Project Figures~~

Duplicate project figures have been removed and included in Appendix B to avoid duplication.



NWI Wetlands Map

**SR 62 over UNT Otter Creek
Small Structure Replacement Project
Warrick County, Indiana
Des 1702071**



Study Area



NWI Wetland



Interstate



State Route



US Route



Local Road



Railroad



Service Layer Credits: INDOT
© 2018 Microsoft Corporation © 2018 DigitalGlobe © CNES (2018)
Distribution Airbus DS, U.S. Fish and Wildlife Service, National Wetlands
Inventory F10 of 20





NRCS Soils Map

**SR 62 over UNT Otter Creek
Small Structure Replacement Project
Warrick County, Indiana
Des 1702071**

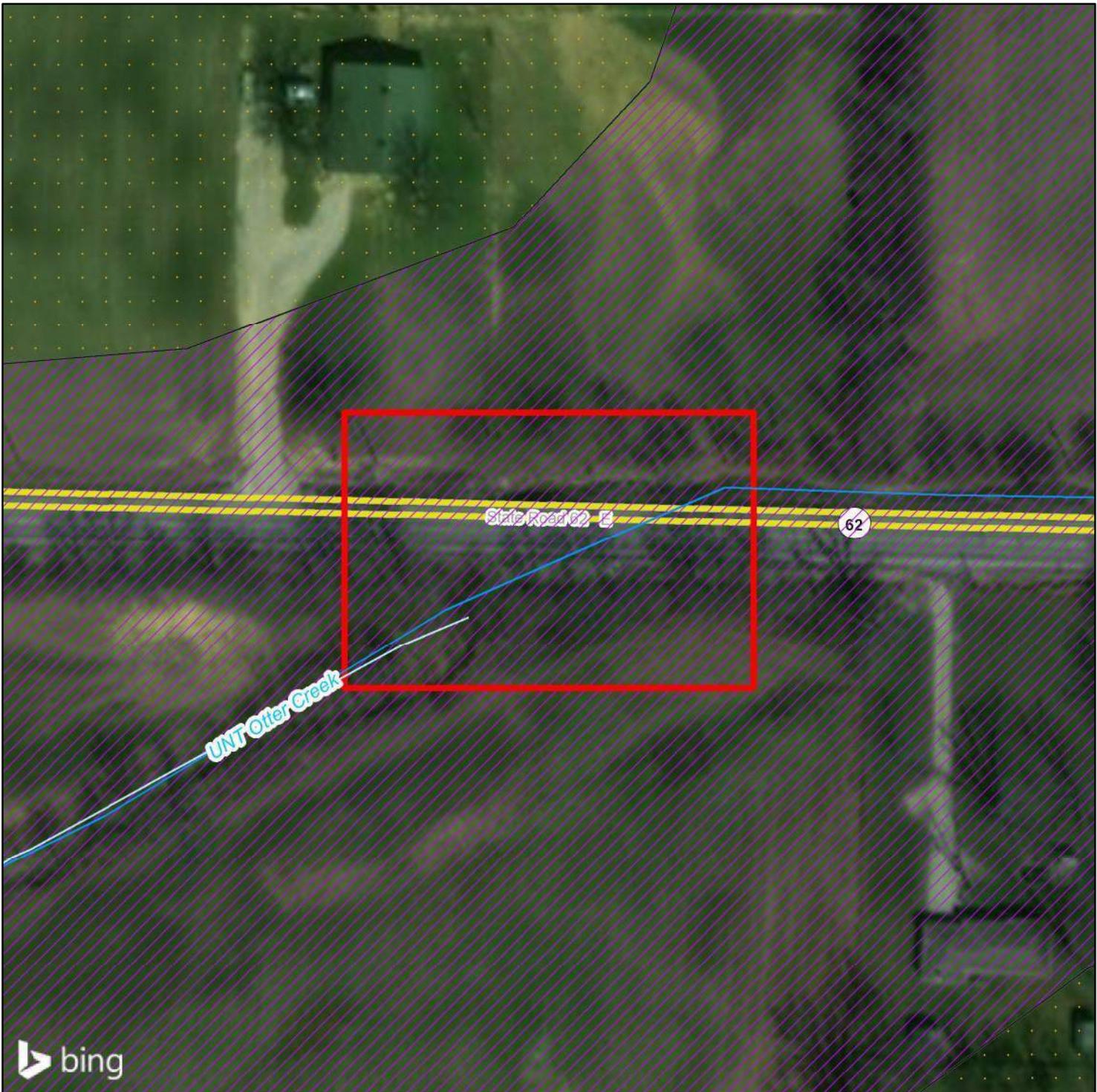
- | | | |
|---|--|--|
|  Study Area |  Hydric |  MoC3 |
|  Interstate |  HeA |  MrA |
|  State Route |  HoB |  MuA |
|  US Route |  Mkb2 |  Wa |
|  Local Road | | |
|  Railroad | | |



0 80 160 320 Feet

Service Layer Credits: INDOT
© 2018 Microsoft Corporation © 2018 DigitalGlobe © CNES (2018)
Distribution Airbus DS, U.S. Department of Agriculture, Natural
Resources Conservation Service Soil Survey Geographic (SSURGO)
database





FEMA Floodzone Map

**SR 62 over UNT Otter Creek
Small Structure Replacement Project
Warrick County, Indiana
Des 1702071**

- | | |
|---|--|
|  Study Area | Flood Hazard |
|  Interstate |  A |
|  State Route |  AE |
|  US Route |  X |
|  Local Road | |
|  Railroad | |



Service Layer Credits: INDOT
 © 2018 Microsoft Corporation © 2018 DigitalGlobe © CNES (2018)
 Distribution Airbus DS, Indiana Department of Natural Resources FIRM
 Floodplain and Flood Hazards of Indiana, FEMA NFHL





LiDAR Map

**SR 62 over UNT Otter Creek
Small Structure Replacement Project
Warrick County, Indiana
Des 1702071**

Legend

 Study Area



Service Layer Credits: INDOT
IGIC, IOT, UITS, IGS, Woolpert

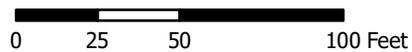




Waters of U.S. Investigation Map

**SR 62 over UNT Otter Creek
Small Structure Replacement Project
Warrick County, Indiana
Des 1702071**

-  Study Area
-  Delineated Streams
-  Drainage Feature
-  Interstate
-  State Route
-  US Route
-  Local Road
-  Railroad



Service Layer Credits: INDOT
Indiana Office of Information Technology, Indiana University Spatial Data
Portal, UITS, Woolpert Inc.,
F14 of 20



~~Photographs~~

Photographs have been removed and included
in Appendix B to avoid duplication.

Preliminary Jurisdictional Determination Form

Appendix 2 - PRELIMINARY JURISDICTIONAL DETERMINATION (PJD) FORM

BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR PJD: June 12, 2019

B. NAME AND ADDRESS OF PERSON REQUESTING PJD: Harlan M. Ford; 201 N. Illinois Street, Suite 1700, Indianapolis In, 46204

C. DISTRICT OFFICE, FILE NAME, AND NUMBER:

D. PROJECT LOCATION(S) AND BACKGROUND INFORMATION: Des No. 1702071
(USE THE TABLE BELOW TO DOCUMENT MULTIPLE AQUATIC RESOURCES AND/OR AQUATIC RESOURCES AT DIFFERENT SITES)

State: IN County/parish/borough: Warrick County City: Boonville

Center coordinates of site (lat/long in degree decimal format):

Lat.: 38.039863° Long.: -87.191993°

Universal Transverse Mercator: NAD83

Name of nearest waterbody: UNT Otter Creek

E. REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY):

Office (Desk) Determination. Date:

Field Determination. Date(s):

TABLE OF AQUATIC RESOURCES IN REVIEW AREA WHICH “MAY BE” SUBJECT TO REGULATORY JURISDICTION.

Site number	Latitude (decimal degrees)	Longitude (decimal degrees)	Estimated amount of aquatic resource in review area (acreage and linear feet, if applicable)	Type of aquatic resource (i.e., wetland vs. non-wetland waters)	Geographic authority to which the aquatic resource “may be” subject (i.e., Section 404 or Section 10/404)
UNT Otter Creek	38.039752°	-87.192071°	256 ft.	Non-wetland water	Section 404
UNT 1	38.039783°	-87.191939°	129 ft.	Non-wetland water	Section 404

- 1) The Corps of Engineers believes that there may be jurisdictional aquatic resources in the review area, and the requestor of this PJD is hereby advised of his or her option to request and obtain an approved JD (AJD) for that review area based on an informed decision after having discussed the various types of JDs and their characteristics and circumstances when they may be appropriate.
- 2) In any circumstance where a permit applicant obtains an individual permit, or a Nationwide General Permit (NWP) or other general permit verification requiring “pre-construction notification” (PCN), or requests verification for a non-reporting NWP or other general permit, and the permit applicant has not requested an AJD for the activity, the permit applicant is hereby made aware that: (1) the permit applicant has elected to seek a permit authorization based on a PJD, which does not make an official determination of jurisdictional aquatic resources; (2) the applicant has the option to request an AJD before accepting the terms and conditions of the permit authorization, and that basing a permit authorization on an AJD could possibly result in less compensatory mitigation being required or different special conditions; (3) the applicant has the right to request an individual permit rather than accepting the terms and conditions of the NWP or other general permit authorization; (4) the applicant can accept a permit authorization and thereby agree to comply with all the terms and conditions of that permit, including whatever mitigation requirements the Corps has determined to be necessary; (5) undertaking any activity in reliance upon the subject permit authorization without requesting an AJD constitutes the applicant’s acceptance of the use of the PJD; (6) accepting a permit authorization (e.g., signing a proffered individual permit) or undertaking any activity in reliance on any form of Corps permit authorization based on a PJD constitutes agreement that all aquatic resources in the review area affected in any way by that activity will be treated as jurisdictional, and waives any challenge to such jurisdiction in any administrative or judicial compliance or enforcement action, or in any administrative appeal or in any Federal court; and (7) whether the applicant elects to use either an AJD or a PJD, the JD will be processed as soon as practicable. Further, an AJD, a proffered individual permit (and all terms and conditions contained therein), or individual permit denial can be administratively appealed pursuant to 33 C.F.R. Part 331. If, during an administrative appeal, it becomes appropriate to make an official determination whether geographic jurisdiction exists over aquatic resources in the review area, or to provide an official delineation of jurisdictional aquatic resources in the review area, the Corps will provide an AJD to accomplish that result, as soon as is practicable. This PJD finds that there “*may be*” waters of the U.S. and/or that there “*may be*” navigable waters of the U.S. on the subject review area, and identifies all aquatic features in the review area that could be affected by the proposed activity, based on the following information:

SUPPORTING DATA. Data reviewed for PJD (check all that apply)

Checked items should be included in subject file. Appropriately reference sources below where indicated for all checked items:

- Maps, plans, plots or plat submitted by or on behalf of the PJD requestor:
Map: Delineation report dated June 12, 2019.
- Data sheets prepared/submitted by or on behalf of the PJD requestor.
 - Office concurs with data sheets/delineation report.
 - Office does not concur with data sheets/delineation report. Rationale: _____.
- Data sheets prepared by the Corps: _____.
- Corps navigable waters' study: _____.
- U.S. Geological Survey Hydrologic Atlas: _____.
 - USGS NHD data.
 - USGS 8 and 12 digit HUC maps.
- U.S. Geological Survey map(s). Cite scale & quad name: 24k De Gonia Springs, IN.
- Natural Resources Conservation Service Soil Survey. Citation: USDA NRCS Soil Survey Geographic (SSURGO) Database for Greene County, Indiana 
- National wetlands inventory map(s). Cite name: NWI accessed 2019.
- State/local wetland inventory map(s): _____.
- FEMA/FIRM maps: FEMA accessed 2019.
- 100-year Floodplain Elevation is: _____.(National Geodetic Vertical Datum of 1929)
- Photographs: Aerial (Name & Date): ESRI World Imagery, 2014.
or Other (Name & Date): Site photos dated 10/11/18.
- Previous determination(s). File no. and date of response letter: _____.
- Other information (please specify): _____.

IMPORTANT NOTE: The information recorded on this form has not necessarily been verified by the Corps and should not be relied upon for later jurisdictional determinations.

Signature and date of
Regulatory staff member
completing PJD

Harlan M. Ford 

Signature and date of
person requesting PJD
(REQUIRED, unless obtaining
the signature is impracticable)¹

Digitally signed by Harlan M. Ford
DN: C=US, E=h.ford@gacconsultants.com, O=GAI
Consultants, OU=Harlan M. Ford
Date: 2019.07.08 09:37:04-04'00'

¹ Districts may establish timeframes for requestor to return signed PJD forms. If the requestor does not respond within the established time frame, the district may presume concurrence and no additional follow up is necessary prior to finalizing an action.

Raquel Walker

From: Cooper, Nicholas <NCooper5@indot.IN.gov>
Sent: Thursday, July 18, 2019 1:45 PM
To: Harlan Ford
Cc: Howder, Aubrey
Subject: RE: Draft Env. WOUS Report for Des No. 1702071

Follow Up Flag: Follow up
Flag Status: Flagged

EXTERNAL E-MAIL MESSAGE

Harlan,

Thank you for submitting the waters report for **SR 62 over UNT to Otter Creek, Des. No. 1702071**. Your most recent submission has been reviewed and approved. For the INDOT PM, the approved report can be found on Projectwise through this link: **Des. No. 1702071 Waters Report - Final**. It is the responsibility of the Project Manager to forward a copy of this report to the Project Designer.

The information in this report should be used by the Project Designer to determine if waters of the U.S. will be impacted by the project. Avoidance and minimization of impacts must occur before mitigation will be considered. If mitigation is required, the Project Manager or Project Designer must coordinate with the Ecology and Waterway Permitting Office to discuss how adequate compensatory mitigation will be provided.

The Project Manager should notify the Ecology and Waterway Permitting Office if there is any change to the project footprint presented in this report. Such changes may require additional fieldwork and submittal of an updated waters report covering areas not previously investigated. This report is only valid for a period of five years from the date of earliest fieldwork. If the report expires prior to waterway permit application submittal, additional fieldwork and a revised waters report will be required.

It will not be sent to the United States Army Corps of Engineers (USACE) or the Indiana Department of Environmental Management (IDEM) until the waterways permit applications are submitted to these agencies.

Nick Cooper

Ecology and Waterway Permitting Specialist
Indiana Department of Transportation
Ph. (317) 233-3698

From: Harlan Ford [mailto:H.Ford@gaiconsultants.com]
Sent: Thursday, July 18, 2019 9:32 AM
To: Cooper, Nicholas <NCooper5@indot.IN.gov>
Cc: Howder, Aubrey <AHowder@indot.IN.gov>
Subject: RE: Draft Env. WOUS Report for Des No. 1702071

****** This is an EXTERNAL email. Exercise caution. DO NOT open attachments or click links from unknown senders or unexpected email. ******

Hey Nick,

Appendix G

Air Quality

Item	Appendix Page
Statewide Transportation Improvement Plan (STIP)	G1
Evansville Metropolitan Planning Organization	G2

This project is part of a group of projects under Contract # 40551. The lead Des No. for this contract is Des. 1700170. Des No. 1702071 is included by reference.

Indiana Department of Transportation (INDOT)
State Preservation and Local Initiated Projects FY 2020 - 2024

SPONSOR	CONTRACT # / LEAD DES	STIP NAME	ROUTE	WORK TYPE	LOCATION	DISTRICT	MILES	FEDERAL CATEGORY	Estimated Cost left to Complete Project*	PROGRAM	PHASE	FEDERAL	MATCH	2020	2021	2022	2023	2024
Indiana Department of Transportation	39418 / 1593067	Init.	SR 68	Bridge Replacement, Other Construction	Over Pigeon Creek Overflow, 2.08 miles E of SR-57	Vincennes	0	STPBG		Bridge Construction	CN	\$1,608,980.80	\$402,245.20		\$2,011,226.00			
Warrick County	39837 / 1600739	Init.	IR 1010	Bridge Replacement, Other Construction	Shilo Road Bridge # 113	Vincennes	.5	STPBG		Local Bridge Program	CN	\$1,075,000.00	\$0.00		\$40,000.00	\$1,035,000.00		
										Local Funds	CN	\$0.00	\$268,750.00		\$10,000.00	\$258,750.00		
Warrick County	39837 / 1600739	A 05	IR 1010	Bridge Replacement, Other Construction	Shilo Road Bridge # 113	Vincennes	.5	STBG	\$1,393,750.00	Local Bridge Program	RW	\$40,000.00	\$0.00	\$40,000.00				
										Local Funds	RW	\$0.00	\$10,000.00	\$10,000.00				
Comments: Amend 2020-2024 STIP. Adding FY20 RW Federal \$40,000.00, FY20 RW Local \$10,000.00. EMPO TIP Letter 8-2-2019.																		
Boonville	39840 / 1600891	Init.	ST 1025	Road Rehabilitation (3 R/4R Standards)	3rd Street (formerly SR 61)	Vincennes	1	STPBG		Local Funds	CN	\$0.00	\$620,000.00			\$620,000.00		
										Local Funds	RW	\$0.00	\$109,650.00	\$109,650.00				
										Group III Program	CN	\$2,480,000.00	\$0.00			\$2,480,000.00		
										Group III Program	RW	\$438,600.00	\$0.00	\$438,600.00				
Indiana Department of Transportation	39921 / 1400195	Init.	SR 66	Other Intersection Improvement	At Epworth Road, 0.16 mile E I-69	Vincennes	1.081	NHPP		Mobility Construction	CN	\$3,268,456.80	\$817,114.20	\$175,000.00	\$3,910,571.00			
Indiana Department of Transportation	40051 / 1602256	Init.	SR 68	Bridge Thin Deck Overlay	Over Old Pigeon Creek, 1.56 miles E SR-57	Vincennes	0	STPBG		Bridge Construction	CN	\$2,629,128.80	\$657,282.20	\$3,286,411.00				
Indiana Department of Transportation	40541 / 1700167	Init.	SR 68	Bridge Replacement, Concrete	Over Wallace Creek, 00.95 miles E SR-161	Vincennes	0	STPBG		Bridge ROW	RW	\$24,000.00	\$6,000.00	\$30,000.00				
										Bridge Construction	CN	\$662,916.80	\$165,729.20			\$828,646.00		
Indiana Department of Transportation	40551 / 1700170	Init.	SR 161	Small Structure Replacement	10.46 miles N Jct SR-66	Vincennes	0	STPBG		Bridge ROW	RW	\$14,400.00	\$3,600.00	\$18,000.00				
										Bridge Construction	CN	\$1,619,550.40	\$404,887.60			\$2,024,438.00		
Indiana Department of Transportation	40626 / 1701206	Init.	SR 662	HMA Overlay, Preventive Maintenance	From I-69 to Ellerbusch Road, 1.51 miles East of I-69	Vincennes	1.555	STPBG		Road Construction	CN	\$701,681.60	\$175,420.40	\$877,102.00				
Indiana Department of Transportation	41407 / 1800176	Init.	SR 61	HMA Overlay, Preventive Maintenance	From 0.14 mi S of I-64 to 0.88 mi N of SR-68 (Lynnville)	Vincennes	1.156	STPBG		Road ROW	RW	\$24,000.00	\$6,000.00			\$30,000.00		
										Road Construction	CN	\$576,800.00	\$144,200.00				\$721,000.00	

*Estimated Costs left to Complete Project column is for costs that may extend beyond the four years of a STIP. This column is not fiscally constrained and is for information purposes.

**Table 5.4:
TIP Projects Listing Cont.**

Sponsor: Indiana Department of Transportation											
Route Des# Length: Description:	Project Limits Planning Reference Federal Funding Source	Map ID Amendment/ Modification Date	Phase	All amounts in thousands					Planning/ Cost to Complete	Federal Share	State Share
				2020	2021	2022	2023	2024			
Warrick County											
SR 68	0.08 mi. W of SR 61		PE						\$ -	\$ -	
1400157			RW	\$134					\$ 107	\$ 27	
n/a	STBG, NHPP	9/12/2019	CN	\$310					\$ 248	\$ 62	
Contract 38721; Small structure replacement.											
I-64	Over Plum Creek, 3.92 mi W of SR 61, EBL & WBL		PE	\$289					\$ 231	\$ 58	
1593068			RW						\$ -	\$ -	
n/a	NHPP	10/10/2019	CN				\$3,646		\$ 3,281	\$ 365	
Contract 39367; Replace Superstructure.											
SR 61	From 0.17 mi E of W Jct SR-62 to E Jct SR-62		PE						\$ -	\$ -	
1592969			RW						\$ -	\$ -	
	STBG		CN	\$1,762					\$ 1,410	\$ 352	
Contract 39377; HMA Overlay, preventative maintenance.											
SR 161	From E jct with SR 62 to W jct with SR 68		PE						\$ -	\$ -	
1592941			RW	\$40					\$ 32	\$ 8	
10.129 mi.	STBG	11/14/2019	CN	\$4,047					\$ 3,238	\$ 809	
Contract 39380; Pavement HMA Overlay, structural.											
SR 68	Over Pigeon Creek Overflow, 2.08 mi. E of SR 57		PE						\$ -	\$ -	
1593067			RW						\$ -	\$ -	
n/a	STBG		CN		\$2,011				\$ 1,609	\$ 402	
Contract 39418; Bridge replacement, other construction											
SR 66	0.16 mi. E of I-69 at Epworth Rd.		PE						\$ -	\$ -	
1400195			RW						\$ -	\$ -	
1.081 mi.	NHPP		CN	\$175	\$3,910				\$ 3,268	\$ 817	
Contract 39921; Other intersection improvement											
SR 68	Over Old Pigeon Creek, 1.56 mi. E of SR 57		PE						\$ -	\$ -	
1602256			RW						\$ -	\$ -	
n/a	STBG		CN	\$3,286					\$ 2,629	\$ 657	
Contract 40051; Bridge thin deck overlay.											
SR 68	Over Wallace Creek, 0.95 mi E of SR 161		PE						\$ -	\$ -	
1700167			RW	\$30					\$ 24	\$ 6	
n/a	STBG		CN			\$829			\$ 663	\$ 166	
Contract 40541; Bridge replacement											
SR 161	10.46 mi. N Jct. SR 66		PE						\$ -	\$ -	
1700170			RW	\$18					\$ 14	\$ 4	
n/a	STBG		CN			\$2,025			\$ 1,620	\$ 405	
Contract 40551; Small structure replacement.											
SR 662	From I-69 to Ellerbusch Rd.		PE						\$ -	\$ -	
1701206			RW						\$ -	\$ -	
1.55 mi.	STBG		CN	\$877					\$ 702	\$ 175	
Contract 40626; HMA Overlay, preventative maintenance.											
SR 61	From 0.14 mi S of I-64 to 0.88 mi N of SR-68		PE						\$ -	\$ -	
1800176			RW			\$30			\$ 24	\$ 6	
0.88	STBG		CN				\$721		\$ 577	\$ 144	
Contract 41407; HMA Overlay, preventative maintenance.											
I-64	CCTV Cameras/Detection from SR 69 to Lanesville		PE				\$155		\$ 140	\$ 16	
1802047			RW						\$ -	\$ -	
n/a	NHPP		CN					\$1,725	\$ 1,553	\$ 173	
Contract 41768; ITS Traffic management systems.											
SR 61 & SR 68	Various locations		PE						\$ -	\$ -	
Various			RW						\$ -	\$ -	
n/a	STBG		CN		\$1,438				\$ 1,150	\$ 288	
Contract 41048. Bridge Thin Deck Overlays. Includes locations outside MPO TIP area.											
I-64 & SR 68	Various locations		PE						\$ -	\$ -	
Various			RW						\$ -	\$ -	
n/a	NHPP, STBG		CN		\$3,258				\$ 2,606	\$ 652	
Contract 41059; Bridge Deck Overlays. Includes locations outside MPO TIP area.											
SR 66	From 2.2 mi. E of SR 61 to US 231		PE						\$ -	\$ -	
1592783			RW						\$ -	\$ -	
15.91 mi.	NHPP		CN	\$6,279					\$ 5,023	\$ 1,256	
Contract 39357; Pavement HMA Overlay, preventive maintenance. Includes locations outside EMPO TIP area.											

Appendix H

Environmental Justice

Item	Appendix Page
EJ Analysis	H1 to H4

Environmental Justice (EJ) Analysis

Small Structure Replacement, SR-62 over UNT Otter Creek

Warrick County, Indiana

Des. No. 1702071

	Community of Concern (COC)	Affected Community (AC 1)
	Warrick County, Indiana	Census Tract 301
Income		
Total population for the purpose of surveying poverty income:	60,540	3,728
Population with income in the past 12 months below poverty level:	4,656	343
Percent Low Income	7.69%	9.20%
<i>125% of COC</i>	<i>9.61%</i>	
Potential Low-income EJ Concern?		No
Race		
Total Population for the purpose of surveying race:	61,581	3,731
Total population non-hispanic/latino; white alone:	57,148	3,721
Number of Minorities	4433	10
Percent of Minorities	7.20%	0.27%
<i>125% of COC</i>	<i>9.00%</i>	
Potential Minority EJ Concern?		No

**B17001: POVERTY STATUS IN THE PAST 12 MONTHS BY SEX BY AGE - Universe: Population for whom poverty status is determined
2013-2017 American Community Survey 5-Year Estimates**

Note: This is a modified view of the original table.

Supporting documentation on code lists, subject definitions, data accuracy, and statistical testing can be found on the American Community Survey website in the Technical Documentation section.

Sample size and data quality measures (including coverage rates, allocation rates, and response rates) can be found on the American Community Survey website in the Methodology section.

Although the American Community Survey (ACS) produces population, demographic and housing unit estimates, it is the Census Bureau's Population Estimates Program that produces and disseminates the official estimates of the population for the nation, states, counties, cities, and towns and estimates of housing units for states and counties.

	Warrick County, Indiana		Census Tract 301, Warrick	
	Estimate	Margin of Error	Estimate	Margin of Error
Total:	60,540	+/-239	3,728	+/-272
Income in the past 12 months below poverty level:	4,656	+/-822	343	+/-166
Male:	1,787	+/-417	179	+/-126
Under 5 years	65	+/-51	0	+/-11
5 years	32	+/-39	0	+/-11
6 to 11 years	314	+/-184	5	+/-5
12 to 14 years	59	+/-45	0	+/-11
15 years	5	+/-8	5	+/-8
16 and 17 years	99	+/-63	0	+/-11
18 to 24 years	224	+/-107	69	+/-74
25 to 34 years	201	+/-108	3	+/-4
35 to 44 years	181	+/-112	16	+/-17
45 to 54 years	167	+/-85	32	+/-48
55 to 64 years	257	+/-111	14	+/-14
65 to 74 years	93	+/-57	9	+/-14
75 years and over	90	+/-58	26	+/-40
Female:	2,869	+/-538	164	+/-90
Under 5 years	170	+/-103	2	+/-4
5 years	0	+/-27	0	+/-11
6 to 11 years	294	+/-124	0	+/-11
12 to 14 years	111	+/-91	2	+/-3
15 years	118	+/-93	0	+/-11
16 and 17 years	219	+/-134	28	+/-40
18 to 24 years	208	+/-98	4	+/-5
25 to 34 years	212	+/-112	2	+/-3
35 to 44 years	374	+/-167	6	+/-5
45 to 54 years	323	+/-109	44	+/-35
55 to 64 years	314	+/-123	7	+/-7
65 to 74 years	195	+/-101	47	+/-46
75 years and over	331	+/-124	22	+/-21
Income in the past 12 months at or above poverty	55,884	+/-866	3,385	+/-284

Data are based on a sample and are subject to sampling variability. The degree of uncertainty for an estimate arising from sampling variability is represented through the use of a margin of error. The value shown here is the 90 percent margin of error. The margin of error can be interpreted roughly as providing a 90 percent probability that the interval defined by the estimate minus the margin of error and the estimate plus the margin of error (the lower and upper confidence bounds) contains the true value. In addition to sampling variability, the ACS estimates are subject to nonsampling error (for a discussion of nonsampling variability, see Accuracy of the Data). The effect of nonsampling error is not represented in these tables.

While the 2013-2017 American Community Survey (ACS) data generally reflect the February 2013 Office of Management and Budget (OMB) definitions of metropolitan and micropolitan statistical areas; in certain instances the names, codes, and boundaries of the principal cities shown in ACS tables may differ from the OMB definitions due to differences in the effective dates of the geographic entities.

Estimates of urban and rural populations, housing units, and characteristics reflect boundaries of urban areas defined based on Census 2010 data. As a result, data for urban and rural areas from the ACS do not necessarily reflect the results of ongoing urbanization.

Source: U.S. Census Bureau, 2013-2017 American Community Survey 5-Year Estimates

Explanation of Symbols:

1. An '***' entry in the margin of error column indicates that either no sample observations or too few sample observations were available to compute a standard error and thus the margin of error. A statistical test is not appropriate.
2. An '-' entry in the estimate column indicates that either no sample observations or too few sample observations were available to compute an estimate, or a ratio of medians cannot be calculated because one or both of the median estimates falls in the lowest interval or upper interval of an open-ended distribution.
3. An '-' following a median estimate means the median falls in the lowest interval of an open-ended distribution.
4. An '+' following a median estimate means the median falls in the upper interval of an open-ended distribution.
5. An '****' entry in the margin of error column indicates that the median falls in the lowest interval or upper interval of an open-ended distribution. A statistical test is not appropriate.
6. An '*****' entry in the margin of error column indicates that the estimate is controlled. A statistical test for sampling variability is not appropriate.
7. An 'N' entry in the estimate and margin of error columns indicates that data for this geographic area cannot be displayed because the number of sample cases is too small.
8. An '(X)' means that the estimate is not applicable or not available.

**B03002: HISPANIC OR LATINO ORIGIN BY RACE - Universe: Total population
2013-2017 American Community Survey 5-Year Estimates**

Note: This is a modified view of the original table.

Supporting documentation on code lists, subject definitions, data accuracy, and statistical testing can be found on the American Community Survey website in the Technical Documentation section.

Sample size and data quality measures (including coverage rates, allocation rates, and response rates) can be found on the American Community Survey website in the Methodology section.

Although the American Community Survey (ACS) produces population, demographic and housing unit estimates, it is the Census Bureau's Population Estimates Program that produces and disseminates the official estimates of the population for the nation, states, counties, cities, and towns and estimates of housing units for states and counties.

	Warrick County, Indiana		Census Tract 301, Warrick	
	Estimate	Margin of	Estimate	Margin of
Total:	61,581	*****	3,731	+/-272
Not Hispanic or Latino:	60,491	*****	3,729	+/-272
White alone	57,148	+/-79	3,721	+/-271
Black or African American alone	968	+/-120	0	+/-11
American Indian and Alaska Native	108	+/-68	0	+/-11
Asian alone	1,519	+/-94	8	+/-14
Native Hawaiian and Other Pacific	14	+/-24	0	+/-11
Some other race alone	32	+/-34	0	+/-11
Two or more races:	702	+/-187	0	+/-11
Two races including Some other race	50	+/-54	0	+/-11
Two races excluding Some other	652	+/-184	0	+/-11
Hispanic or Latino:	1,090	*****	2	+/-3
White alone	793	+/-174	2	+/-3
Black or African American alone	0	+/-27	0	+/-11
American Indian and Alaska Native	0	+/-27	0	+/-11
Asian alone	0	+/-27	0	+/-11
Native Hawaiian and Other Pacific	0	+/-27	0	+/-11
Some other race alone	197	+/-160	0	+/-11
Two or more races:	100	+/-81	0	+/-11

Data are based on a sample and are subject to sampling variability. The degree of uncertainty for an estimate arising from sampling variability is represented through the use of a margin of error. The value shown here is the 90 percent margin of error. The margin of error can be interpreted roughly as providing a 90 percent probability that the interval defined by the estimate minus the margin of error and the estimate plus the margin of error (the lower and upper confidence bounds) contains the true value. In addition to sampling variability, the ACS estimates are subject to nonsampling error (for a discussion of nonsampling variability, see Accuracy of the Data). The effect of nonsampling error is not represented in these tables.

While the 2013-2017 American Community Survey (ACS) data generally reflect the February 2013 Office of Management and Budget (OMB) definitions of metropolitan and micropolitan statistical areas; in certain instances the names, codes, and boundaries of the principal cities shown in ACS tables may differ from the OMB definitions due to differences in the effective dates of the geographic entities.

Estimates of urban and rural populations, housing units, and characteristics reflect boundaries of urban areas defined based on Census 2010 data. As a result, data for urban and rural areas from the ACS do not necessarily reflect the results of ongoing urbanization.

Source: U.S. Census Bureau, 2013-2017 American Community Survey 5-Year Estimates

Explanation of Symbols:

1. An '***' entry in the margin of error column indicates that either no sample observations or too few sample observations were available to compute a standard error and thus the margin of error. A statistical test is not appropriate.
2. An '-' entry in the estimate column indicates that either no sample observations or too few sample observations were available to compute an estimate, or a ratio of medians cannot be calculated because one or both of the median estimates falls in the lowest interval or upper interval of an open-ended distribution.
3. An '-' following a median estimate means the median falls in the lowest interval of an open-ended distribution.
4. An '+' following a median estimate means the median falls in the upper interval of an open-ended distribution.
5. An '***' entry in the margin of error column indicates that the median falls in the lowest interval or upper interval of an open-ended distribution. A statistical test is not appropriate.
6. An '*****' entry in the margin of error column indicates that the estimate is controlled. A statistical test for sampling variability is not appropriate.
7. An 'N' entry in the estimate and margin of error columns indicates that data for this geographic area cannot be displayed because the number of sample cases is too small.
8. An '(X)' means that the estimate is not applicable or not available.



Des No. 1702071

Legend:

Your Selections

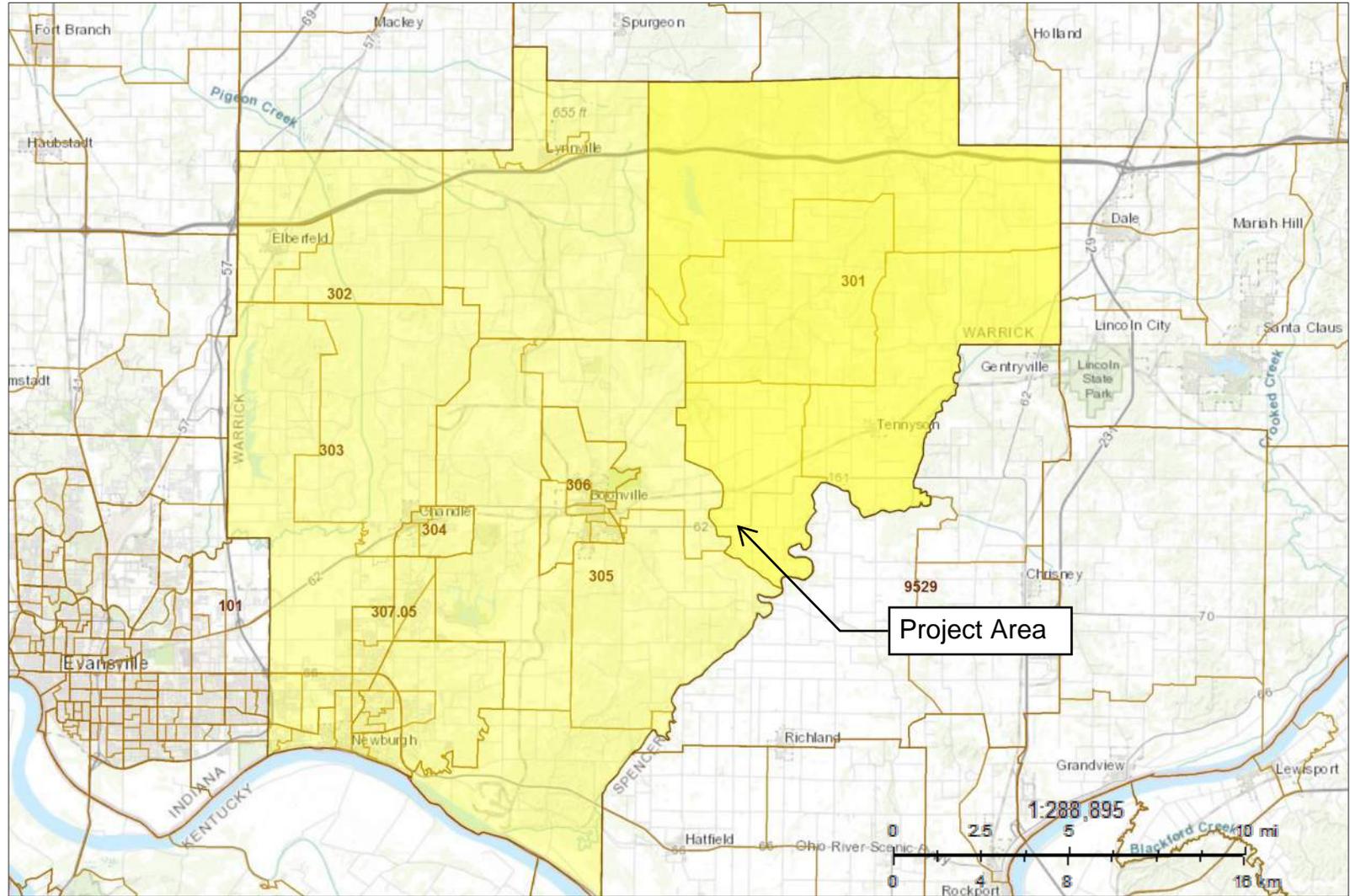
- 2017 boundaries were used to map 'Your Selections'

Selection Results

No Legend

2018 Boundaries

- Census Tract
- Block Group



Appendix I

Additional Studies

Item	Appendix Page
Land & Water Conservation Funds Grants	I1
IDNR-DOR LWCF Property List	I2

Land and Water Conservation Fund Grants: Indiana

The Park Service is finding out about more closures and conversions of federally protected parks than ever before. But no one knows just how many, so InvestigateWest compiled this database, which lists every LWCF grant between 1965 and 2011, as a starting point. Click a column header to re-sort the table. Click-shift to add a secondary sort.

[RETURN TO THE PROJECT PAGE](#)

FILTER THE LIST:

Grant ID & Element	Grant Name	Sponsor	County	State	Grant Amount	Year Approved	Year Completed	Type
82 - XXX	NEWBURGH PARK AND SWIMMING POOL	NEWBURGH PARK BOARD	WARRICK	IN	\$111,076.39	1971	1973	Combination
383 - XXX	AMAX ATHLETIC FIELD	NEWBURGH PARK BOARD	WARRICK	IN	\$50,000.00	1981	1985	Development

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Land and Water Conservation Fund (LWCF) County Property List for Indiana (Last Updated December 2019)

ProjectNumber	SubProjectCode	County	Property
1800082	1800082	Warrick	Newburgh Community Park and Newburgh Community Poo
1800383	1800383	Warrick	Newburgh-Amax Athletic Park, Ed Gesser Soccer,
1800405	1800405O	Warrick	Little Pigeon Creek Wetland Conservation Area

Please note, some of the property names are cut off on the ends due to character limits

Also, park names may have changed and is not reflected on the list.

*Various - this may include multiple sites in multiple counties and should always be included in your searches by county.